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# COMMERCIAL FERTILIZERS

Report for 1951

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Chief Chemist

THE CONNECTICUT AGRICULTURAL EXPERIMENT  
STATION, NEW HAVEN, CONNECTICUT



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# REPORT ON INSPECTION AND ANALYSIS OF COMMERCIAL FERTILIZERS, 1951

H. J. FISHER, Chief Chemist<sup>1</sup>

## CONNECTICUT LAW AND REGULATIONS REGARDING COMMERCIAL FERTILIZERS

The term "commercial fertilizers", as used in the Connecticut fertilizer statute, includes "any and every substance imported, manufactured, prepared or sold for fertilizing or manuring or soil amendment purposes, except barnyard manure and stable manure which have not been artificially treated or manipulated, marl and lime". An amendment of the law in 1949 permitted fertilizers to be labelled with guaranties of elements other than nitrogen, phosphorus and potassium, but did not change the requirement that mixed fertilizers must contain at least 0.82 per cent of nitrogen and 1 per cent of either phosphoric acid or potash for guaranties of these elements to be made. Phosphorus must be declared as available phosphoric acid (except in the case of bone, tankage and other natural organic materials, where total phosphoric acid is guaranteed) and potassium as water-soluble potash; all other elements must be guaranteed in terms of percentages of *the elements*, not as oxides or salts. A registration fee of \$10.00, payable annually, is charged for each element guaranteed in each brand of fertilizer; there is also a six cent tonnage tax, payable semi-annually.

While manufacturers usually register their own fertilizers, if a retailer sells a fertilizer manufactured by an out-of-state firm, and that firm refuses to register, under the law the retailer is responsible for registration fees and tonnage taxes. *The retailer, therefore, should assure himself that the requirements of the law have been met by the manufacturers of the brands which he handles, or himself be prepared to meet all these requirements.*

The law exempts from registration, and from other requirements, only (1) fertilizers passing through the State in transit; (2) fertilizers and fertilizer materials shipped to regular fertilizer factories to be used for manufacturing purposes, and (3) fertilizers and fertilizer chemicals sold to The Connecticut Agricultural Experiment Station for experimental purposes.

*Cottonseed, linseed, peanut and soybean oil meals, when sold or used for fertilizer purposes, must be registered as fertilizers and the specified fees paid thereon. For such products the registration fee is \$10.00 per brand. This fee and the tonnage tax are entirely apart from the registration fee required by the feeding stuffs law for vegetable meals used as feeds (there is no tonnage tax on feeds).*

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<sup>1</sup>Analyses were made by Messrs. O. L. Nolan and Sherman Squires and Miss Helen Kocaba; inspection and sampling by Mr. George Smith; compilations by Mr. Nolan and Miss Lillian Goffi.

*Because manufacturers or jobbers do not know how much, if any, of their vegetable meal tonnage is sold or used as fertilizer, local dealers and purchasers report their sales or purchases to this Station. The information is not for publication but is used to inform manufacturers of the total sales of their meal as fertilizer in this state. It is expected that the fees provided for by statute will be paid by the manufacturer or other party responsible for the brands.*

### **Official Definitions of Fertilizer Terms and Materials**

It is expected that fertilizers sold in this state will comply with the regulations and standards of the Association of American Fertilizer Control Officials. A copy of the "Official Publication" of that Association giving these definitions and regulations may be obtained from the secretary-treasurer, B. D. Cloaninger, Drawer 392, Clemson, South Carolina, for \$1.00.

## **REGISTRATIONS**

### **Late Registrations for 1950**

To the brands registered for 1950 in our last report should be added the following:

**Maurice Pincoffs Co., Cotton Exchange Bldg., Houston 2, Tex.**  
Pinco Brand Cottonseed Meal

### **Registrations for 1951**

For 1951, 74 firms and individuals registered 354 brands of fertilizer at this Station for sale in the State. As required by statute, the brands are listed as follows:

**Agricultural Supply Co., 221 Richmond Ave., West Haven, Conn.**  
Yale Special Mixture

**Ted Alkire, Box 1468, Lubbock, Tex.**  
Kireal Cotton Hull Ash

**Allied Chemical & Dye Corp., The Barrett Div., 40 Rector St., New York 6, N. Y.**  
A-N-L Brand Fertilizer Compound  
ARCADIAN the American Nitrate of Soda  
Sulphate of Ammonia

**The American Agricultural Chemical Co., 285 River St., No. Weymouth 91, Mass.**

AA Quality Fertilizer 0-12-18  
AA Quality Fertilizer 0-14-14  
AA Quality Fertilizer 3-12-6  
AA Quality Fertilizer 3-12-12  
AA Quality Fertilizer 5-5-15  
AA Quality Fertilizer 5-8-7  
AA Quality Fertilizer 5-10-5  
AA Quality Fertilizer 5-10-10  
AA Quality Fertilizer 6-3-6  
AA Quality Fertilizer 7-7-7  
AA Quality Phosphate Rock  
Agrico Country Club Fertilizer 6-10-4  
Agrico Country Club Fertilizer 8-6-2  
Agrico for Broadleaf Evergreens 6-10-4  
Agrico for Corn 4-12-4  
Agrico for Gardens 5-10-5  
Agrico for Grain 3-12-6  
Agrico for Lawns, Trees and Shrubs 6-10-4  
Agrico for New England 5-8-7  
Agrico for Potatoes 5-10-10  
Agrico for Potatoes 5-10-10-1.2  
Agrico for Seeding Down 3-12-12  
Agrico for Tobacco 6-3-6  
Agrico for Top Dressing 7-7-7  
Agrico for Truck 5-10-5  
Agrico for Turf 6-8-2  
Agrico Phosphate and Potash 0-12-18  
Agrico Phosphate and Potash 0-14-14  
Agrico Rose Food 5-9-6  
Agrinite

**The American Agricultural Chemical Co.,  
285 River St., No. Weymouth 91, Mass.—*Cont'd.***

Bone Meal  
Castor Pomace  
Muriate of Potash  
18% Normal Superphosphate  
Pulverized Sheep Manure

**American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y.**

20% AERO Cyanamid, Granular  
20.6% AERO Cyanamid, Granular  
AERO Cyanamid, Special Grade  
AERO-PHOS Florida Natural Phosphate  
AEROPRILLS Ammonium Nitrate Fertilizer

**Apothecaries Hall Co., 28 Benedict St., Waterbury, Conn.**

Bone Meal 2.25  
Bone Meal 3.70  
Castor Pomace  
Cotton Hull Ashes  
Dry Ground Fish  
Liberty Fertilizer 0-14-14  
Liberty Fertilizer 0-20-20  
Liberty Fertilizer 3-12-12  
Liberty Fertilizer 4-12-4  
Liberty Fertilizer 5-10-5  
Liberty Fertilizer 5-10-10  
Liberty Fertilizer 5-10-10 with 1.2% Magnesium  
Liberty Fertilizer 6-8-8  
Liberty Fertilizer 6-8-8 with 1.2% Magnesium  
Liberty Fertilizer 8-16-16  
Liberty Green Gro Fertilizer 6-7-4  
Liberty High Grade Market Gardeners 5-8-7  
Liberty High Grade Market Gardeners 5-8-7 with 1.2% Magnesium  
Liberty High Grade Market Gardeners with Sulphate of Potash 5-8-7  
Liberty Landscape and Golf Course 8-6-2  
Liberty Special for Fruit and Grass 7-7-7  
Liberty Tobacco Mixture 5-3-5  
Liberty Tobacco Mixture 6-3-6  
Liberty Tobacco Mixture with Castor Pomace 6-3-6  
Liberty Tobacco Mixture with Cottonhull Ashes 6-3-6  
Liberty Tobacco Starter 4-10-0  
Liberty Tobacco Starter 5-5-15  
Magnesium Sulphate, Fertilizer Grade  
Muriate of Potash  
Nitrate of Potash  
Precipitated Bone  
Sheep Manure  
Sulphate of Ammonia  
Sulphate of Potash  
Superphosphate

**Archer-Daniels-Midland Co., 600 Roanoke Bldg., Minneapolis, Minn.**

Archer Quality 32% Protein Expeller Linseed Oil Meal  
Archer Quality 36% Protein Solvent Extracted Linseed Oil Meal

**Armour Fertilizer Works, 120 Broadway, New York 5, N. Y.**

Armour's Big Crop Fertilizer 0-20-20  
Armour's Big Crop Fertilizer 5-8-7  
Armour's Big Crop Fertilizer 5-10-10  
Armour's Big Crop Fertilizer 7-7-7  
Armour's Big Crop Fertilizer 20% Superphosphate

**Armour Fertilizer Works, 120 Broadway, New York 5, N. Y.—Cont'd.**

Armour's Big Crop Fertilizer Tobacco Special 6-3-6  
Armour's Bone Meal Fertilizer  
Armour's Pulverized Sheep Manure  
Armour's Vertagreen Plant Food 5-10-5  
Armour's Vertagreen Plant Food for Commercial Crops 6-12-12  
Armour's Vertagreen Plant Food for Professional Use 10-6-4

**Ashcraft-Wilkinson Co., 601 Trust Co. of Georgia Bldg., Atlanta 3, Ga.**

Cow-Eta Brand 41% Protein Cottonseed Meal

**Associated Seed Growers, Inc., Railroad Ave., Milford, Conn.**

Asgrow Lawn Food  
Japedizer

**Atkins & Durbrow, Inc., 165 John St., New York 38, N. Y.**

DRICONURE

**The F. A. Bartlett Tree Expert Co., 60 Canal St., Stamford, Conn.**

Bartlett Green Tree Food

**The Boswell Co., 171 Blackland Rd., N. W., Atlanta, Ga.**

Pure Gold 41% Protein Cottonseed Meal  
Wooster Brand 44% Solvent Extracted Soybean Meal

**Joseph Breck & Sons Corp., 401 Summer St., Boston 10, Mass.**

Brexone Graden-Gro  
Brexone Turf-Gro

**The Buckeye Cotton Oil Co., 6th & Main Sts., Cincinnati, Ohio**

Buckeye 41% Protein Cottonseed Meal for Fertilizer

**Central Chemical Corp., Lebanon, Pa.**

Farmrite Gardenrite  
Farmrite Sulfate of Ammonia

**Chilean Nitrate Sales Corp., 120 Broadway, New York 5, N. Y.**

Chilean Nitrate of Soda—Champion Brand

**Consolidated Rendering Co., 178 Atlantic Ave., Boston 10, Mass.**

Corenco 0-14-14 Top Dresser  
Corenco 4-12-4 Complete Manure  
Corenco 4-12-16 Ladino Special  
Corenco 5-5-15 Tobacco Starter  
Corenco 5-8-7 Potato and General Crop  
Corenco 5-10-5 Home Garden  
Corenco 5-10-5 Onion Special-Super Truck  
Corenco 5-10-10 Peerless Potato  
Corenco 5-10-10-1.2 with Water Soluble Magnesium  
Corenco 6-3-6 Perfection Tobacco Grower  
Corenco 6-3-6 Premium Tobacco Grower  
Corenco 6-8-8 Potato Special  
Corenco 7-7-7 Complete Fruit and Top Dressing  
Corenco 8-6-4 Landscape  
Corenco Ground Bone 1.5%  
Corenco Ground Bone 2%  
Corenco Sheep Manure  
Corenco Special Ground Bone  
Corenco Spurz-on  
Corenco Superphosphate 20%  
Muriate of Potash  
Sulphate of Potash

**The Davey Tree Expert Co., 117 S. Water St., Kent, Ohio**

Davey Shredded Cattle Manure  
Davey Tree Food

**R. G. Davis & Sons, 560 Grand Ave., New Haven, Conn.**

"Organo"

**The Davison Chemical Corp., Charles & Fayette Sts., Baltimore 3, Md.**

Davco Granulated Fertilizer 0-14-14  
Davco Granulated Fertilizer 0-20-20  
Davco Granulated Fertilizer 4-12-16  
Davco Granulated Fertilizer 5-8-7  
Davco Granulated Fertilizer 5-10-5  
Davco Granulated Fertilizer 5-10-10  
Davco Granulated Fertilizer 7-7-7  
Davco Granulated Fertilizer 8-16-16  
Davco Granulated Superphosphate 20%  
Muriate of Potash  
Potato Special Davco "Premium" Fertilizer 5-10-10 with 1.2 Magnesium

**The Doggett-Pfeil Co., 642 Morris Turnpike, Springfield, N. J.**

Clay's London Fertilizer

**The Doughten Seed Co., 151 Twelfth St., Jersey City 2, N. J.**

Faith Soil Food with Insect Control

**E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.**

DU PONT NU GREEN Fertilizer Compound  
DU PONT URAMON Fertilizer Compound

**Eastern States Farmers' Exchange, Inc., 26 Central St., West Springfield, Mass.**

Eastern States 0-19-19 with 5% Borax  
Eastern States 0-20-20  
Eastern States 5-10-10-0.6  
Eastern States 5-15-15-0.6  
Eastern States 6-4-6-1.2 Tobacco  
Eastern States 8-4-8-1.2 Tobacco  
Eastern States 8-12-12-1.2 L. C. S.  
Eastern States 8-12-12-1.2 S. M.  
Eastern States 8-16-8-0.6  
Eastern States 8-16-16-0.6  
Eastern States 10-10-10-0.6  
Eastern States Muriate of Potash  
Eastern States Plant Starter  
Eastern States Sulfate of Ammonia  
Eastern States Sulfate of Potash  
Eastern States Superphosphate—Granulated and Pulverized

**The Espoma Co., P. O. Box 108, Millville, N. J.**

Espoma  
Holly-Tone

**Faesy & Besthoff, Inc., 325 Spring St., New York 13, N. Y.**

High Organic Pelletized All-Purpose 6-12-6  
Pure Bone Meal  
Rose Food 8-10-4

**Ford Motor Co., 3000 Schaefer Road, Dearborn, Mich.**

Ford Ammonium Sulphate

**Fox Point Chemical Co., 49 Valley St., East Providence, R. I.**

Old Fox Brand 0-12-24  
Old Fox Brand 0-20-0

**Fox Point Chemical Co., 49 Valley St., East Providence, R. I.—*Cont'd.***

Old Fox Brand 0-20-20  
Old Fox Brand 4-12-8  
Old Fox Brand 5-8-7  
Old Fox Brand 5-10-10-0.6  
Old Fox Brand 7-7-7

**Goulard & Olena, Inc., Skillman, N. J.**

Freedz-N'-Weedz 2-4, D  
G & O Dahlia-Lily-Gladiola 5-6-15  
G & O Ground Bone Fertilizer  
G & O Rose Food

**Heeman Manufacturing Co., 515 Palmer St., Wooster, Ohio**

Wooster Lawn Builder with 2-4, D  
Wooster Plant Builder

**A. H. Hoffman, Inc., Landisville, Lancaster County, Pa.**

Hoffman Cow Manure (Dehydrated)  
Hoffman Sheep Manure (Kiln-Dried)

**Hoover Soil Service, Gilman, Ill.**

A Soft Phosphate with Colloidal Clay

**Humphreys-Godwin Co., 2246 Park Ave., Memphis, Tenn.**

Dixie Brand 41% Cottonseed Meal

**International Minerals & Chemical Corp., P. O. Box 230, Woburn, Mass.**

International 5-8-7-0.6  
International 5-10-10-0.6  
International Castor Pomace  
International 20% Superphosphate  
International Tobacco 6-3-6

**International Vegetable Oil Mill, Union & North Sts., Greenville, Miss.**

Cottonseed Meal

**Spencer Kellogg & Sons, Inc., 98 Delaware Ave., Buffalo 5, N. Y.**

Castor Pomace  
Spencer Kellogg's 32% Protein Old Process Linseed Oil Meal  
Spencer Kellogg's 34% Protein Old Process Linseed Oil Meal  
Spencer Kellogg's 44% Protein Toasted Soybean Oil Meal—Solvent Extracted

**L. B. Lovitt & Co., 314 Cotton Exchange Bldg., Memphis, Tenn.**

"Lovit Brand" 41% Protein Cottonseed Meal

**The Mamlon Co., 1089 Whalley Ave., New Haven 15, Conn.**

FER-MEL Water Soluble Turf Food

**Marianna Sales Co., 510 Cotton Exchange Bldg., Memphis, Tenn.**

"WHITE MULE BRAND" 41% Protein Cottonseed Meal

**McCormick & Co., Inc., McCormick Bldg., Baltimore 2, Md.**

HY-GRO

**"Na-Churs" Plant Food Co., 121 Garden St., Marion, Ohio**

"Na-Churs" Liquid Fertilizer 5-5-10  
"Na-Churs" Liquid Fertilizer 5-10-5

**Old Deerfield Fertilizer Co., Inc., 20 Sugarloaf St., So. Deerfield, Mass.**

"Churn" Brand Sterilized Feeding Bone Meal  
 Old Deerfield Castor Pomace  
 Old Deerfield Cotton Hull Ash 35%  
 Old Deerfield Cotton Hull Ash 40%  
 Old Deerfield Dry Ground Fish  
 Old Deerfield High Grade Sulphate of Potash  
 Old Deerfield Lawnshrub Fertilizer 6-5-5  
 Old Deerfield Muriate of Potash 60%  
 Old Deerfield 5-5-15 Tobacco Starter  
 Old Deerfield 5-8-7 Fertilizer  
 Old Deerfield 5-10-5 Fertilizer  
 Old Deerfield 5-10-10 Fertilizer  
 Old Deerfield 6-3-6 Complete Tobacco  
 Old Deerfield 7-7-7 Fertilizer  
 Old Deerfield 20% Superphosphate  
 Precipitated Bone  
 Triple Superphosphate 47%

**Olds & Whipple, Inc., 168 State St., Hartford, Conn.**

Horn and Hoof Meal  
 Muriate of Potash 60%  
 Nitrate of Potash  
 O & W Bone Meal  
 O & W Castor Pomace  
 O & W Cotton Hull Ash  
 O & W Menhaden Dry Ground Fish  
 O & W Sulphate of Potash  
 O & W Superphosphate  
 O & W Triple Superphosphate  
 O & W Uramon Fertilizer Compound  
 O & W 0-14-14 Fertilizer  
 O & W 0-20-20 Fertilizer  
 O & W 4-8-4 Complete Lawn and Grass Fertilizer  
 O & W 4-12-4 Market Garden Fertilizer  
 O & W 5-3-5 Complete Tobacco Fertilizer-Potash derived from Cotton Hull Ash  
 O & W 5-5-15 High Grade Tobacco Starter  
 O & W 5-8-6 Luxura  
 O & W 5-8-7 Potato and General Purpose Fertilizer  
 O & W 5-8-7 Potato and General Purpose Fertilizer with Sulphate of Potash  
 O & W 5-10-10 Potato Fertilizer  
 O & W Potato 5-10-10 Fertilizer with 1.2% magnesium  
 O & W 6-3-6 Blue Label Tobacco Fertilizer  
 O & W 6-3-6 Blue Label Tobacco Fertilizer-Potash derived from Cotton Hull Ash  
 W/0.13 Cu  
 O & W 6-3-6 Pomace Base Fertilizer-Potash derived from Cotton Hull Ash  
 O & W 7-7-7 Top Dressing and Grass Fertilizer  
 Precipitated Bone Phosphate  
 Sheep Manure  
 Sulphate of Potash and Magnesia

**Pedigreed Seed Co., 44 W. Broadway, New York 7, N. Y.**

Lofts Lawn Food

**Perkins Oil Co., 727 Beale Ave., Memphis, Tenn.**

Golden Rod Brand 41% Protein Cottonseed Meal—Prime Quality

**The Frank S. Platt Co., Inc., 450 State St., New Haven, Conn.**

Platt's Special 10-5-5 Lawn Fertilizer

**Premier Peat Moss Corp., 535 Fifth Ave., New York 17, N. Y.**

Premier-Nure

**The Pulverized Manure Co., 503 Exchange Bldg., Chicago 9, Ill.**

Wizard Brand Cow Manure  
Wizard Brand Pulverized Sheep Manure

**Ra-Pid-Gro Corp., 88 Ossian St., Dansville, N. Y.**

Ra-Pid-Gro

**Ray & King, 211 Ave. M, Lubbock, Tex.**

Cotton Bur Ashes

**The Rogers & Hubbard Co., Bank St., Portland, Conn.**

Castor Pomace  
Gro-Fast Aluminum Sulphate  
Gro-Fast Acid Fertilizer  
Gro-Fast Bone Meal  
Gro-Fast Cow Manure  
Gro-Fast Plant Food  
Gro-Fast Rose Food  
Gro-Fast Sheep Manure  
Horn and Hoof Meal  
Hubbard 6-8-8 for Potatoes  
Hubbard 10-6-2  
Hubbard Alfalfa Fertilizer 0-14-14  
Hubbard Alfalfa Fertilizer 0-14-14 W/0.55 Boron  
Hubbard Corn Fertilizer  
Hubbard Cottonhull Ash  
Hubbard Dairy Fertilizer  
Hubbard Double Strength Fertilizer  
Hubbard Fertilizer 10-5-5  
Hubbard Fertilizer 10-10-10  
Hubbard Garden Fertilizer  
Hubbard General Crop Fertilizer  
Hubbard Golf Course Fertilizer  
Hubbard High Potash Fertilizer  
Hubbard Potato Fertilizer 5-8-7  
Hubbard Seeding Fertilizer  
Hubbard Tobacco Grower  
Hubbard Top Dressing Fertilizer  
Hubbard Valley Brand 6-3-6  
Hubbard Vegetable Fertilizer 5-8-7  
Hubbard Weed-Kil Lawn Food  
Muriate of Potash  
Organico  
Superphosphate

**Rose Manufacturing Co., 6 Main St., Beacon, N. Y.**

Triogen Rose Food

**Ruhm Phosphate & Chemical Co., 8 So. Michigan Ave., Chicago 3, Ill.**

Red Seal Brand Ruhm's Phosphate Rock

**O. M. Scott & Sons Co., Marysville, Ohio**

Scott's Turf Builder  
Scott's Weed and Feed

**Sears, Roebuck and Co., 925 S. Homan Ave., Chicago 7, Ill.**

Cross Country Bulb Food  
Cross Country Cattle Manure 1.5-0.75-2  
Cross Country Cattle Manure 1.5-1-2  
Cross Country Cattle Manure 1.75-0.8-2

**Sears, Roebuck and Co., 925 S. Homan Ave., Chicago 7, Ill.—Cont'd.**

Cross Country Plant Food  
Cross Country Rose Food  
Cross Country Sheep Manure 1.5-0.75-2  
Cross Country Sheep Manure 1.5-1-2  
Cross Country Sheep Manure 1.75-0.75-3

**Sewerage Commission of the City of Milwaukee, P. O. Box 2079, Milwaukee 1, Wis.  
Milorganite****M. L. Shoemaker, Inc., Div. Wilson & Co., Delaware Ave. & Venango St.,  
Philadelphia 34, Pa.**

M. L. Shoemaker's "Swift-Sure" Tobacco Starter

**The Smith Agricultural Chemical Co., 618 No. Champion Ave., Columbus 16, Ohio  
Sacco Plant Food  
WEDO with 2,4-D****The Southern Cotton Oil Co., Atlanta, Ga.  
SCO-CO Brand Cottonseed Meal (41% Protein)****Wendell S. Still, Middle Country Rd., Selden, N. Y.  
Farmanure****Stumpp & Walter Co., 132 Church St., New York 8, N. Y.**

Sawco Bone Fertilizer  
Sawco Economy Fertilizer  
Sawco Emerald Grass Fertilizer  
Sawco General Garden Fertilizer 4-12-4  
Sawco General Garden Fertilizer 5-10-5  
Sawco Golf Fertilizer  
Sawco Muriate of Potash  
Sawco Rose Food  
Sawco Superphosphate  
Sawco Treewiz  
Sawconure

**Swift & Co., 25 Faneuil Hall Sq., Boston 9, Mass.**

Blenn  
Bone Meal  
Brimm  
Red Steer 5-8-7  
Red Steer 10-6-4  
Sheep Manure  
Vigoro 5-10-5  
Vigoro C. G.

**Tennessee Corp., Lockland, Cincinnati 15, Ohio**

Loma 5-10-5  
Loma 5-10-5 Mineralized  
Loma 8-8-8 Mineralized

**The Terre Co., Rochelle Park, N. J.**

Terre Lawn-Spur  
Terre Rodo-Gro

**Thomason Phosphate Dept., International Minerals & Chemical Corp.,  
407 So. Dearborn St., Chicago 5, Ill.**

Four Leaf Powdered Rock Phosphate

**Universal Chemical Co., 106 Ontario St., Lynn, Mass.**

Electra Plant Food

**The Van Iderstine Co., 37-30 Review Ave., Long Island City 1, N. Y.**

Vico Steamed Bone Meal—Fertilizer

**Walker-Gordon Laboratory Co., Plainsboro, N. J.**

Bovung

**Oscar F. Warner, 24 E. Aurora St., Waterbury, Conn.**

Warner's Grubedizer

Warner's Lawn Fertilizer

Warner's Tree Food

**West Tennessee Soya Mill, Inc., Tiptonville, Tenn.**

44% Protein Soybean Oil Meal

**Garfield Williamson, Inc., 1072 Westside Ave., Jersey City 6, N. J.**

Plantspur

**F. H. Woodruff & Sons, Inc., Depot St., Milford, Conn.**

Gro-Sod-Lawn Food

**Woodruff Fertilizer Works, Inc., Sackett Point Rd., No. Haven, Conn.**

Muriate of Potash 60%

Woodruff's Castor Pomace

Woodruff's 0-14-14 Fertilizer with 0.11 Boron

Woodruff's 5-8-7 Fertilizer

Woodruff's 5-10-10 Fertilizer

Woodruff's 6-8-8 Fertilizer

Woodruff's 7-7-7 Fertilizer

Woodruff's Lawn & Tree Food 10-6-4

Woodruff's Superphosphate 20%

Woodruff's Tobacco Fertilizer with Cottonseed Base 6-3-6

Woodruff's Tobacco Fertilizer with Pomace Base 6-3-6

Woodruff's Tobacco Starter 5-5-15

## FERTILIZER INSPECTION FOR 1951

The Connecticut fertilizer law does not provide for compulsory limitation of the grades of fertilizers that may be sold in this State, but the New England agronomists usually compile annual lists of recommended fertilizer ratios and minimum grades that they believe are sufficient to take care of all the requirements of New England agriculture. At the annual New England Fertilizer Conference on February 27 and 28, 1950, the following list was approved for the 1950-1951 fertilizer season:

<i>Ratio</i>	<i>Minimum Grade</i>
0-1-1	0-14-14
1-1-1	7- 7- 7
1-1-3	5- 5-15
1-2-1	5-10- 5
1-2-2	5-10-10
2-1-2	6- 3- 6
3-4-4	6- 8- 8
5-8-7	5- 8- 7

It is on the basis of this list that we compiled the report on page 19 of the tons of fertilizer grades "approved for Connecticut" consumed during the 1950-1951 season. Recently, at a meeting in Boston on September 28, 1951, the New England agronomists issued a new list for the 1951-1952 season in which the phosphoric acid percentages were reduced to compensate for the market shortage in superphosphate caused by the world-wide shortage in sulphur. (Sulphur is needed to make sulphuric acid, which is an essential ingredient in the manufacture of superphosphate by present processes.) In their announcement to the fertilizer industry the agronomists stated that "The evidence seems clear that the accumulation of phosphorus in soils which have been heavily fertilized for a period of years is so large that reduced amounts can be used with little or no crop reduction for a period of years, and possibly indefinitely". This list for the 1951-1952 season is as follows:

<i>Ratio</i>	<i>Minimum Grade</i>
0-1-2	0-10-20
1-1-1	8- 8- 8
1-1-3	5- 5-15 (Tobacco fertilizer)
2-1-2	6- 3- 6 (Tobacco fertilizer)
2-3-4	6- 9-12
3-4-4	6- 8- 8

During the season the Station agent collected samples of all registered brands that could be found on the market. Certain registered fertilizer materials, particularly vegetable meals, are purchased almost wholly by tobacco growers for direct shipment in carload lots from outside the State. Most tobacco growers submitted unofficial samples from each

carload for analysis by this Station, but in addition an attempt was made by our agent to take official samples from as many of these shipments as possible. Nevertheless, vegetable meal samples analyzed in 1951 were 69 less than in 1950, which partially accounts for the decline in total number of samples from 824 to 712.

The following tabulation lists the total number of samples analyzed, both official and unofficial, of each class of fertilizer, as well as the tonnage sold in the period between July 1, 1950 and June 30, 1951 (these tonnage figures do not include fertilizer distributed under the Federal Agricultural Adjustment Program):

## CLASSIFICATION OF FERTILIZER MATERIALS AND FERTILIZER TONNAGE

(Tonnage is for the period July 1, 1950 to June 30, 1951)

	Page	No. of samples	Tonnage
I. Containing chiefly nitrogen:			
Nitrate of ammonia .....	24	1	414
Nitrate of soda .....	24	11	1,101
Sulphate of ammonia .....	24	7	157
Cyanamid and urea .....	24	6	117
Castor pomace .....	25	10	3,172
Cottonseed meal .....	25	91	9,361
Horn and hoof meal .....	26	2	106
Linseed oil meal .....	26	5	1,071
Peanut meal .....	..	..	70
Soybean oil meal .....	26	12	1,351
Other materials .....	27	3	335
			<hr/>
			17,255
II. Containing chiefly phosphoric acid:			
Superphosphate 18% .....	28	1	812
20% .....	28	14	5,340
47% .....	28	3	34
Precipitated bone .....	29	12	502
Phosphate rock .....	29	4	310
			<hr/>
			6,998
III. Containing chiefly potash:			
Muriate of potash .....	30	12	1,762
Sulphate of potash .....	30	7	272
Sulphate of potash-magnesia .....	..	1	42
Cottonhull ashes .....	30	12	1,451
			<hr/>
			3,527
IV. Containing nitrogen and phosphoric acid:			
Bone meal .....	32	19	1,143
Dry ground fish .....	32	10	964
Other materials .....	33	2	845
			<hr/>
			2,952
V. Containing nitrogen and potash:			
Nitrate of potash .....	30	4	383
			<hr/>
			383
VI. Mixed fertilizers:			
Commercial mixtures .....	34	217	52,450 <sup>1</sup>
Special and home mixtures .....	..	111	594
			<hr/>
			53,044
VII. Miscellaneous:			
Borax .....	..	..	7
Sheep manure, etc. ....	50	19	938
Limestone and similar materials .	52	8	.....
Fertilizers sold in small packages	53	46	.....
Other miscellaneous materials ..	58	30	31
Check meals and fertilizers .....	..	32	.....
			<hr/>
			976
Totals .....		712	<hr/>
			85,135

<sup>1</sup> For distribution of this tonnage see next page.

**Mixed Fertilizer Tonnage***Grades Approved for Connecticut*

<i>Grade</i>	<i>Tons</i>	<i>Grade</i>	<i>Tons</i>
0-14-14	1,269	6- 8- 8	1,186
0-19-19	358	6-12-12	67
0-20-20	974	7- 7- 7	3,085
5- 5-15	614	8- 4- 8	1,190
5- 8- 7	7,886	8- 8- 8	1
5-10- 5	2,747	8-16- 8	664
5-10-10	7,819	8-16-16	1,128
6- 3- 6	15,088	10-10-10	930
		13-26-13	1
		Total	45,007

*Other Grades**(More than 50 tons)*

0-10-20	117	6- 7- 4	179
0-12-18	129	6- 8- 2	67
3-12- 6	147	6- 8- 6	106
3-12-12	216	6-10- 4	510
4- 4- 2	80	7-11- 5	56
4- 8- 4	50	8- 6- 2	545
4-10-10	232	8- 6- 4	524
4-12- 4	1,204	8-12-12	961
5- 3- 5	784	9- 7- 4	369
5-15-15	297	10- 5- 5	100
6- 4- 6	320	10- 6- 4	157
		Total	7,150

*(Less than 50 tons)*

0-12-24	8	5- 9- 6	5
3- 2- 1	24	5-10- 3	5
3.5-3.5-1.5	15	5-15-10	27
4- 6- 4	6	7- 8- 5	20
4-10- 4	23	7-10- 5	20
4-12- 8	23	12- 4- 4	19
4-12-16	41	23-21-17	5
5- 6-15	7	25-10-10	6
5- 8- 6	20	Other grades	19
		Total	293
		Grand Total	52,450

**I. Raw Materials Chiefly Valuable for Nitrogen**

Sulphate of ammonia and ammonia solutions are probably the cheapest sources of nitrogen for commercial mixed fertilizers, but little of either is sold in Connecticut for use as such. Eighty-seven per cent (15,025 tons) of the primarily nitrogenous fertilizers purchased for fertilizer use in Connecticut during the 1951 season were vegetable meals. The explanation for this is that tobacco growers are so convinced that vegetable meals

are necessary for the production of cigar wrapper tobacco of good quality that they are willing to pay the very high price. (Cottonseed meal sells for approximately \$49.00 a ton wholesale.)

Analyses of the 47 official samples of nitrogenous fertilizers are given in Table 1. All except three of these (one sample each of sulphate of ammonia, cyanamid and "Organico") substantially met their guaranties.

## **II. Raw Materials Chiefly Valuable for Phosphoric Acid**

Analyses of 14 official samples of 20 per cent superphosphate and one of the 18 per cent and two of the 47 per cent grades are given in Table 2. One of the 20 per cent and both 47 per cent superphosphates were below guaranty. Five samples of precipitated bone and four of phosphate rock met their guaranties.

## **III. Raw Materials Chiefly Valuable for Potash**

Ten official samples of muriate of potash, four of sulphate of potash and seven of cottonhull ashes were analyzed. All samples except one of muriate of potash and three of cottonhull ashes met their guaranties.

Analyses are given in Table 3.

## **IV. Raw Materials Supplying Nitrogen and Phosphoric Acid**

This group comprises chiefly dry ground fish and bone meal. Guaranties of "available" phosphoric acid are not required on such products, and most of them bear guaranties of total nitrogen and total phosphoric acid only. All of the three official samples of dry ground fish considerably exceeded their guaranties; of the 16 official samples of bone meal, four were deficient in nitrogen. Of two samples of "Milorganite", a treated sewage sludge, one was deficient in nitrogen.

Analyses are given in Table 4.

## **V. Raw Materials Supplying Nitrogen and Potash**

There is only one fertilizer material falling in this class, namely, nitrate of potash. Fertilizer grade nitrate of potash must contain not less than 12 per cent of nitrogen and 44 per cent of potash. The one official sample analyzed in 1951, listed in Table 3, met its guaranties of 13 per cent nitrogen and 44 per cent potash.

## **VI. Mixed Fertilizers**

### *Commercial Mixtures*

Analyses of 216 official samples of mixed fertilizers are given in Table 5. Results are summarized as follows:

Total number of samples .....	216	
Samples deficient in:		
one item .....	60	
two items .....	7	67
Percentage of samples meeting guaranties .....		69
Total guaranties made .....		628 <sup>1</sup>
Guaranties not met:		
nitrogen .....	40	
phosphoric acid .....	17	
potash .....	17	74
Percentage met .....		88

Eighty-eight per cent of all guaranties were substantially met or exceeded, which is nearly identical with the 87 per cent found in 1950.

Seventeen official samples guaranteed magnesium (usually 1.2 per cent), as well as the major fertilizer components; guaranties were exceeded in all cases. Three samples guaranteed between 0.3 and 0.6 per cent of boron; one guaranteed 0.13 per cent of copper; one guaranteed five minor elements (boron, copper, iron, manganese and zinc), and another guaranteed these same elements plus magnesium. No serious deficiencies were found in any of these guaranties.

#### *Special and Home Mixtures*

One hundred and eleven samples of special and home mixtures were analyzed during the year, the great majority for tobacco growers. Because the composition of these samples is not a matter of public interest, their analyses are not tabulated in this bulletin.

#### *State Purchases of Fertilizer*

Raw materials and mixed goods supplied to State institutions on State purchase orders are regularly included in our annual inspection. Fertilizers so supplied are subject to registration and tonnage tax (unless supplied to The Connecticut Agricultural Experiment Station for experimental purposes).

Samples representing State purchases are indicated in the several tables. They are summarized as follows:

<u>Materials</u>	<u>No. of Samples</u>	<u>Reference</u>
Supplying nitrogen .....	4	Table 1
Supplying phosphoric acid .....	3	Table 2
Supplying potash .....	3	Table 3
Supplying nitrogen and phosphoric acid .....	1	Table 4
Mixed fertilizers .....	17	Table 5
Total	28	

<sup>1</sup> One hundred and ninety-six samples with three guaranties and 20 samples with two guaranties (guaranties for minor elements not included).

## VII. Miscellaneous

*Sheep and other cattle manures.* Eighteen official samples of dried sheep and cow manures were analyzed; of these, two were deficient in nitrogen. Analyses are given in Table 6.

*Limestone and similar materials.* The legal definition of "commercial fertilizers" specifically excludes "marl and lime" and, therefore, no regular inspection of liming materials is made. Occasional samples are analyzed for farmers or state or federal agencies, and analyses of eight such samples are given in Table 7.

*Fertilizers sold in small packages.* Fertilizers sold only in packages of 10 pounds or less are not required to be registered. No attempt, therefore, is made to analyze all brands of such fertilizers on the market, but such of them as come to the attention of our agent are sampled and analyzed as a matter of interest. During the 1950-1951 season 45 samples were analyzed, of which 28, or 62 per cent, met their guaranties; this is very little below the 69 per cent found for the mixed fertilizers sold in 100-lb. bags. Analyses are given in Table 8.

*Other miscellaneous materials.* Thirty other miscellaneous products were examined; analyses of 21 of them are given in Table 9.

This table includes analyses of two official samples of "Gro-Fast Aluminum Sulphate". This salt was registered under the fertilizer law with a guaranty of 9 per cent of aluminum but, because analyses of aluminum sulphate would not fit into any of the previous tables, these analyses were placed in Table 9 even though they are the only official samples in this table.

*Check meals and fertilizers.* Collaboration was continued with the check analysis programs sponsored by the American Oil Chemists' Society and the F. S. Royster Guano Company, and five samples were analyzed in connection with a collaborative study of methods for the determination of potash conducted by the Association of Official Agricultural Chemists. Thirty-two samples in all were analyzed under these various programs.

## MAINTENANCE OF GUARANTIES

The maintenance of guaranties as compiled from analyses of ingredient materials and mixed goods (Tables 1-6) is shown in the following tabulation. Deficiencies of 0.1 per cent or less in nitrogen or 0.2 per cent or less in phosphoric acid and potash are not considered. The proportion of guaranties substantially met was 88 per cent.

	<i>No. of samples</i>	<i>No. of guaranties</i>	<i>Deficiencies</i>
Nitrate of ammonia . . . . .	1	1	0
Nitrate of soda . . . . .	5	5	0
Sulphate of ammonia . . . . .	5	5	1
Cyanamid . . . . .	3	3	1

Urea .....	3	3	0
Castor pomace .....	7	7	0
Cottonseed meal .....	11	11	0
Horn and hoof meal .....	1	1	0
Linseed oil meal .....	4	4	0
Soybean oil meal .....	4	4	0
Miscellaneous nitrogenous materials	3	3	1
Superphosphate .....	17	17	3
Precipitated bone .....	5	5	0
Phosphate rock .....	4	4	0
Muriate of potash .....	10	10	1
Nitrate of potash .....	1	2	0
Sulphate of potash .....	4	4	0
Cottonhull ashes .....	7	7	3
Dry ground fish .....	3	6	0
Bone meal .....	16	32	4
Milorganite .....	2	4	1
Mixed fertilizer .....	216	628	74
Totals .....	332	756	89
Per cent guaranties met .....			88

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
Nitrate of Ammonia				
6050	AEROPRILLS. American Cyanamid Co., New York, N. Y. ....	North Haven: Eastern States Farmers' Exchange, Inc. ....	33.55	33.50
Nitrate of Soda				
6024	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y. . .	South Windsor: South Windsor Tobacco Farms . . . . .	16.12	16.00
6044 <sup>2</sup>	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y. . .	Cheshire: Conn. Reformatory	16.16	16.00
6227 <sup>2</sup>	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y. . .	Meriden: Conn. School for Boys . . . . .	16.00	16.00
5387	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y. . .	Portland: Consolidated Cigar Co., Inc. . . . .	16.14	16.00
5399	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y. . .	Glastonbury: E. J. Bantle . . .	16.00	16.00
Sulphate of Ammonia				
6224	Allied Chemical & Dye Corp., New York, N. Y. ....	Meriden: Church-Morse, Inc. .	20.96	20.60
6264	Allied Chemical & Dye Corp., New York, N. Y. ....	Danbury: H. E. Meeker . .	20.78	20.56
6423	Apothecaries Hall Co., Waterbury, Conn. ....	Windsorville: Apothecaries Hall Co. . . . .	20.74	20.50
6496	Farmrite. Central Chemical Corp., Lebanon, Pa. ....	Hartford: Cadwell & Jones, Inc. . . . .	19.54	20.50
6534	Eastern States. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. . .	Norwich: Eastern States Farmers' Exchange, Inc. ....	20.80	20.50
Cyanamid				
6047 <sup>2</sup>	20.6% AERO. American Cyanamid Co., New York, N. Y. ....	Cheshire: Conn. Reformatory	20.65	20.60
6202	20.6% AERO. American Cyanamid Co., New York, N. Y. ....	East Hartford: Eastern States Farmers' Exchange, Inc. . . .	19.96	20.60
6541 <sup>2</sup>	20.6% AERO. American Cyanamid Co., New York, N. Y. ....	Norwich: Norwich State Hospital . . . . .	20.52	20.60

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> State purchases.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
Urea				
6052	DU PONT NU GREEN Fertilizer Compound. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. . . .	North Haven: Eastern States Farmers' Exchange, Inc. . . . .	44.20	44.00
6333	DU PONT URAMON Fertilizer Compound. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. . . .	North Haven: Woodruff Fertilizer Works, Inc. . . . .	42.25	42.00
6652	O & W Uramon Fertilizer Compound. Olds & Whipple, Inc., Hartford, Conn. . . .	East Hartford: Olds & Whipple, Inc. . . . .	43.75	42.00
Castor Pomace				
5398	The American Agricultural Chemical Co., North Weymouth, Mass. . . . .	Glastonbury: E. J. Bantle . . . .	5.61	4.00
6556	Apothecaries Hall Co., Waterbury, Conn. . . . .	Cheshire: Cheshire Nursery . . . .	6.06	4.50
5401	Spencer Kellogg & Sons, Inc., Buffalo, N. Y. . . . .	West Suffield: Hatheway-Steane Corp. . . . .	6.10	5.55
5396	Old Deerfield. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass. . . . .	Glastonbury: E. J. Bantle . . . .	5.78	4.50
6650	O & W. Olds & Whipple, Inc., Hartford, Conn. . . .	East Hartford: Olds & Whipple, Inc. . . . .	5.43	4.50
6443	The Rogers & Hubbard Co., Portland, Conn. . . . .	Portland: The Rogers & Hubbard Co. . . . .	5.44	4.50
6332	Woodruff's. Woodruff Fertilizer Works, Inc., North Haven, Conn. . . . .	North Haven: Woodruff Fertilizer Works, Inc. . . . .	5.84	4.50
Cottonseed Meal				
5394	Cow-Eta Brand 41%. Ashcraft-Wilkinson Co., Atlanta, Ga. . . . .	Simsbury: Cullman Bros., Inc. . . .	6.87	6.56
5402	Cow-Eta Brand 41%. Ashcraft-Wilkinson Co., Atlanta, Ga. . . . .	West Suffield: Hatheway-Steane Corp. . . . .	6.71	6.56
6091	Cow-Eta Brand 41%. Ashcraft-Wilkinson Co., Atlanta, Ga. . . . .	Scitico: Consolidated Cigar Co., Inc. . . . .	6.52	6.56
5388	Pure Gold 41%. The Boswell Co., Atlanta, Ga. . . . .	Scitico: Consolidated Cigar Co., Inc. . . . .	6.90	6.56
5389	Pure Gold 41%. The Boswell Co., Atlanta, Ga. . . . .	Scitico: Consolidated Cigar Co., Inc. . . . .	6.84	6.56

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN <sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
5390	Pure Gold 41%. The Boswell Co., Atlanta, Ga. ....	Scitico: Consolidated Cigar Co., Inc. ....	6.68	6.56
6031	Buckeye 41%. The Buckeye Cotton Oil Co., Cincinnati, Ohio .....	East Windsor Hill: General Cigar Co., Inc. ....	7.18	6.56
6036	Buckeye 41%. The Buckeye Cotton Oil Co., Cincinnati, Ohio .....	East Windsor Hill: General Cigar Co., Inc. ....	7.24	6.56
5393	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn. ....	Simsbury: American Sumatra Tobacco .....	6.84	6.56
6368	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn. ....	Windsorville: Apothecaries Hall Co. ....	6.58	6.56
5395	Golden Rod Brand 41%. Perkins Oil Co., Memphis, Tenn. ....	Simsbury: Cullman Bros., Inc. ....	6.79	6.56
<b>Horn and Hoof Meal</b>				
6025	The Rogers & Hubbard Co., Portland, Conn. ....	South Windsor: South Windsor Tobacco Farms .....	14.44	14.00
<b>Linseed Oil Meal</b>				
6033	Archer Quality 32%. Archer-Daniels-Midland Co., Minneapolis, Minn. ....	East Windsor Hill: General Cigar Co., Inc. ....	5.30	5.12
5400	Archer Quality 36%. Archer-Daniels-Midland Co., Minneapolis, Minn. ....	West Suffield: Hatheway-Steane Corp. ....	5.76	5.76
5397	Spencer Kellogg's 32%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y. ....	Glastonbury: E. J. Bantle ....	5.54	5.12
6026	Spencer Kellogg's 34%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y. ....	South Windsor: South Windsor Tobacco Farms .....	5.80	5.44
<b>Soybean Oil Meal</b>				
5391	Wooster Brand 44%. The Boswell Co., Atlanta, Ga. .	Scitico: Consolidated Cigar Co., Inc. ....	7.48	7.04
6029	Spencer Kellogg's 44%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y. ....	South Windsor: South Windsor Tobacco Farms .....	7.78	7.04
5386	44%. West Tennessee Soya Mill, Inc., Tiptonville, Tenn. ....	Portland: Consolidated Cigar Co., Inc. ....	7.80	7.04

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
5392	44% West Tennessee Soya Mill, Inc., Tiptonville, Tenn. ....	Scitico: Consolidated Cigar Co., Inc. ....	7.90	7.04
	<b>Miscellaneous</b>			
6208 <sup>3</sup>	A-N-L. Allied Chemical & Dye Corp., New York, N. Y.	East Windsor Hill: Farmers Hardware Co. ....	20.60	20.50
6065	Agrinite. The American Agricultural Chemical Co., North Weymouth, Mass. . .	Westville: Jackson - Marvin Hardware Co. ....	8.90	8.25
6492	Organico. The Rogers & Hubbard Co., Portland, Conn. ....	Berlin: Berlin Garden Center	<b>7.92</b>	<b>8.25</b>

<sup>1</sup>Deficiencies are in bold face type.<sup>2</sup>State purchases.<sup>3</sup>Found: nitrogen in nitrates, 10.36%; nitrogen in ammonia, 10.24%; magnesium guaranteed, 4.22%; found, 4.30%.

TABLE 2. ANALYSES OF SUPERPHOSPHATE, ETC.<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent phosphoric acid			
			Citrate-Insoluble	Total	Found	"Available"
						Guaranteed
Superphosphate						
6270	18% Normal. The American Agricultural Chemical Co., North Weymouth, Mass. ....	Danbury: Barnum's Feed Store .....	0.55	18.95	18.40	18.00
6022	Apothecaries Hall Co., Waterbury, Conn. ....	West Suffield: Hatheway-Steane Corp. . .	1.65	22.50	20.85	20.00
6205	Armour's Big Crop Fertilizer 20%. Armour Fertilizer Works, New York, N. Y. ....	East Windsor Hill: Farmers Hardware Co. .	1.27	21.60	20.33	20.00
6173	Corenco 20%. Consolidated Rendering Co., Boston, Mass. ....	Cos Cob: Belmont Feed Co. ....	1.05	22.25	21.20	20.00
6271 <sup>2</sup>	Corenco 20%. Consolidated Rendering Co., Boston, Mass. ....	Newtown: Fairfield State Hospital .....	0.15	21.00	20.85	20.00
6314 <sup>2</sup>	Corenco 20%. Consolidated Rendering Co., Boston, Mass. ....	Southbury: Southbury Training School .	1.75	22.60	20.85	20.00
6537	Davco Granulated 20%. The Davison Chemical Corp., Baltimore, Md. ....	Norwich: Checkerboard Feed Store .....	1.17	21.95	20.78	20.00
6201	Eastern States Granulated. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. ....	East Hartford: Eastern States Farmers' Exchange, Inc. ....	1.55	22.40	20.85	20.00
6578	Old Fox Brand. Fox Point Chemical Co., East Providence, R. I. ....	Groton: The C. W. Campbell Co. ....	0.07	20.40	20.33	20.00
6567	International 20%. International Minerals & Chemical Corp., Woburn, Mass. ....	West Suffield: H. L. Oppenheimer & Sons	1.60	22.45	20.85	20.00
6683	Old Deerfield 20%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass. ....	South Deerfield: Old Deerfield Fertilizer Co., Inc. ....	0.07	19.15	19.08	20.00
6686	Triple 47%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass. ....	South Deerfield: Old Deerfield Fertilizer Co., Inc. ....	0.35	46.20	45.85	47.00

6651	O & W Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc. ....	1.75	22.20	20.45	20.00
6687	O & W Triple. Olds & Whipple, Inc., Hartford, Conn.	Simsbury: Cushman Bros., Inc. ....	0.32	43.90	43.58	47.00
6027	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Farms .....	0.22	21.00	20.78	20.00
6613	Sawco. Stumpp & Walter Co., New York, N. Y.	Stamford: Stumpp & Walter Co. ....	0.20	21.95	21.75	20.00
6331	20% Woodruff Fertilizer Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer Works, Inc. ....	1.70	22.30	20.60	20.00
<b>Precipitated Bone Phosphate</b>						
6034	Apothecaries Hall Co., Waterbury, Conn.	East Windsor Hill: General Cigar Co., Inc.	0.55	43.85	43.30	38.00
6011	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle .....	1.25	40.30	39.05	38.00
6028	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	South Windsor: South Windsor Tobacco Farms .....	1.70	39.85	38.15	38.00
6510 <sup>2</sup>	Olds & Whipple, Inc., Hartford, Conn.	Windsor: Conn. Agricultural Experiment Station Tobacco Laboratory .....	1.77	41.20	39.43	38.00
6653	Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc. ....	1.12	41.05	39.93	38.00
<b>Phosphate Rock</b>						
6280 <sup>3</sup>	AA Quality. The American Agricultural Chemical Co., North Weymouth, Mass.	West Haven: The American Agricultural Chemical Co. ....	27.40	30.50	3.10	3.00
6621 <sup>4</sup>	AERO-PHOS Florida Natural. American Cyanamid Co., New York, N. Y.	Darien: Brookside Nurseries .....	29.40	33.05	3.65	3.00
6688 <sup>5</sup>	A Soft Phosphate with Colloidal Clay. Hoover Soil Service, Gilman, Ill.	Sharon: Walter Huber .....	13.45	18.00	4.55	2.00
6066 <sup>3</sup>	Red Seal Brand Ruhm's. Ruhm Phosphate & Chemical Co., Chicago, Ill.	Westville: Jackson-Marvin Hardware Co. .	26.12	30.20	4.08	3.00

<sup>1</sup>Deficiencies are in bold face type.<sup>2</sup>State purchases.<sup>3</sup>Total phosphoric acid guaranteed, 30.0%.<sup>4</sup>Total phosphoric acid guaranteed, 33.0%.<sup>5</sup>Total phosphoric acid guaranteed, 18.0%.

TABLE 3. ANALYSES OF POTASH SALTS, ETC.<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent potash	
			Found	Guaranteed
Muriate of Potash				
6218	The American Agricultural Chemical Co., North Weymouth, Mass. ....	East Hartford: The American Agricultural Chemical Co. .	59.56	58.00
6258	Consolidated Rendering Co., Boston, Mass. ....	Bethel: Marble & Risser ....	60.80	60.00
6700	The Davison Chemical Corp., Baltimore, Md. ....	New Milford: Check-R-Board Feed Store .....	52.48	50.00
6053	Eastern States. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. .	North Haven: Eastern States Farmers' Exchange, Inc. ...	62.32	60.00
6054	Eastern States. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. .	North Haven: Eastern States Farmers' Exchange, Inc. ...	62.00	60.00
6684	Old Deerfield. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass. ....	South Deerfield: Old Deerfield Fertilizer Co., Inc. . .	60.00	60.00
6049 <sup>2</sup>	Olds & Whipple, Inc., Hartford, Conn. ....	Cheshire: Connecticut Reformatory .....	62.20	60.00
6273 <sup>2</sup>	Olds & Whipple, Inc., Hartford, Conn. ....	Newtown: Fairfield State Hospital .....	62.32	60.00
6353	The Rogers & Hubbard Co., Portland, Conn. ....	Torrington: Litchfield County Co-op. Assoc. ....	60.92	60.00
6244	Sawco. Stumpp & Walter Co., New York, N. Y. ....	Stamford: Stumpp & Walter Co. ....	48.89	50.00
6614	Sawco. Stumpp & Walter Co., New York, N. Y. ....	Stamford: Stumpp & Walter Co. ....	50.64	50.00
6334	60%. Woodruff Fertilizer Works, Inc., North Haven, Conn. ....	North Haven: Woodruff Fertilizer Works, Inc. ....	62.24	60.00
Nitrate of Potash				
6006	Apothecaries Hall Co., Waterbury, Conn. ....	Scitico: Consolidated Cigar Co.	46.64	44.00
6012 <sup>3</sup>	Olds & Whipple, Inc., Hartford, Conn. ....	Glastonbury: E. J. Bantle ...	46.80	44.00
Sulphate of Potash				
6008	Apothecaries Hall Co., Waterbury, Conn. ....	Simsbury: Cullman Bros., Inc.	52.08	48.00
6315 <sup>2</sup>	Consolidated Rendering Co., Boston, Mass. ....	Southbury: Southbury Training School .....	52.36	48.00
6509 <sup>2</sup>	Consolidated Rendering Co., Boston, Mass. ....	Windsor: Conn. Agricultural Experiment Station Tobacco Laboratory .....	49.36	48.00

TABLE 3. ANALYSES OF POTASH SALTS, ETC.<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent potash	
			Found	Guaranteed
6566	Old Deerfield High Grade. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass. ....	West Suffield: H. L. Oppen- heimer & Sons	52.48	49.00
6460	O & W. Olds & Whipple, Inc., Hartford, Conn. ....	East Hartford: Olds & Whip- ple, Inc. ....	51.96	48.00
<b>Cottonhull Ashes</b>				
6007	Kireal. Ted Alkire, Lubbock, Tex. ....	Simsbury: Cullman Bros., Inc.	34.94	33.00
6023	Apothecaries Hall Co., Water- bury, Conn. ....	West Suffield: Hatheway- Steane Corp. ....	33.50	unit basis
6013	Old Deerfield 35%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle ...	35.32	35.00
6004	Old Deerfield 40%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Scitico: Consolidated Cigar Co., Inc. ....	39.12	40.00
6032	O & W. Olds & Whipple, Inc., Hartford, Conn. ....	East Windsor Hill: General Cigar Co., Inc. ....	41.84	35.00
6030	Hubbard. The Rogers & Hubbard Co., Portland, Conn. ....	South Windsor: South Wind- sor Tobacco Farms ....	43.44	45.00
7353	Hubbard. The Rogers & Hubbard Co., Portland, Conn. ....	South Windsor: South Wind- sor Tobacco Farms ....	41.40	45.00

<sup>1</sup>Deficiencies are in bold face type.<sup>2</sup>State purchases.<sup>3</sup>Nitrogen guaranteed, 13.0%; found, 13.56%.

TABLE 4. ANALYSES OF GROUND FISH, BONE, ETC.<sup>1</sup>

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen		Per cent phosphoric acid		Mechanical analysis (in percentage)	
			Total found	Total guaranteed	Total found	Total guaranteed	Finer than 1/50 inch	Coarser than 1/50 inch
<b>Dry Ground Fish</b>								
6021	Apothecaries Hall Co., Waterbury, Conn. ....	WestSuffield: Hatheway-SteaneCorp.	9.98	9.00	7.81	5.00	....	....
6005	Old Deerfield, Old Deerfield Fertilizer Co., South Deerfield, Mass. ....	Scitico: Consolidated Cigar Co., Inc.	9.82	9.00	6.88	5.00	....	....
6014	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn. ....	Glastonbury: E. J. Bantle .....	10.00	9.00	7.15	5.00	....	....
<b>Bone Meal</b>								
6268	The American Agricultural Chemical Co., North Weymouth, Mass. ....	Danbury: Barnum's Feed Store .....	3.21	2.50	25.10	20.00	46.0	54.0
6009	Apothecaries Hall Co., Waterbury, Conn. ....	Simsbury: Cullman Bros., Inc. ....	2.62	2.25	25.35	22.00	53.0	47.0
6351	Apothecaries Hall Co., Waterbury, Conn. ....	Torrington: Torrington Grain Co. ....	2.50	2.25	25.95	22.00	58.0	42.0
6168	Apothecaries Hall Co., Waterbury, Conn. ....	Greenwich: McArdle's Seed Store ...	4.28	3.70	22.10	20.00	26.0	74.0
6207	Armour's. Armour Fertilizer Works, New York, N. Y. ....	East Windsor Hill: Farmers Hardware Co. ....	2.69	2.30	25.45	23.00	52.5	47.5
6281	Corenco. Consolidated Rendering Co., Boston, Mass. ....	West Haven: New Haven Rendering Co. ....	1.42	1.50	30.15	27.00	50.0	50.0
6558	Corenco. Consolidated Rendering Co., Boston, Mass. ....	Thompsonville: Brainard Nursery & Seed Co. ....	1.54	2.00	32.05	23.00	67.0	33.0
6561	Corenco Special. Consolidated Rendering Co., Boston, Mass. ....	Thompsonville: Brainard Nursery & Seed Co. ....	3.98	3.70	21.55	20.00	31.0	69.0
6266	Pure. Faesy & Besthoff, Inc., New York, N. Y. ...	Danbury: Heyman Hardware Co. ....	2.31	2.47	28.00	23.00	62.0	38.0

6261 <sup>2</sup>	G & O Ground. Goulard & Olena, Inc., Skillman, N. J. ....	Bethel: Nelson Hardware Co. ....	3.47 <sup>3</sup>	2.40	19.30	20.00	43.0	57.0
6010	"Churn" Brand Sterilized Feeding. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass. ....	Portland: Consolidated Cigar Co., Inc. ....	1.06	0.80	33.00	32.00	83.5	16.5
6035	O & W. Olds & Whipple, Inc., Hartford, Conn. ....	East Windsor Hill: General Cigar Co., Inc. ....	<b>2.24</b>	<b>2.47</b>	<b>27.80</b>	<b>22.00</b>	<b>68.0</b>	<b>32.0</b>
6192	Gro-Fast. The Rogers & Hubbard Co., Portland, Conn. ....	New Haven: The Roland T. Warner Co. ....	<b>2.25<sup>4</sup></b>	2.00	26.95	23.00	73.0	27.0
6678 <sup>5</sup>	Gro-Fast. The Rogers & Hubbard Co., Portland, Conn. ....	Norwich: Uncas-on-Thames ....	2.38	2.00	26.60	23.00	63.0	37.0
6234	Sawco. Stumpp & Walter Co., New York, N. Y. .	Stamford: Stumpp & Walter Co. ....	2.58	2.47	25.55	22.00	66.0	34.0
6440	Vico Steamed. The Van Iderstine Co., Long Island City, N. Y. ....	Portland: The Rogers & Hubbard Co. ....	<b>2.22</b>	<b>2.47</b>	<b>27.70</b>	<b>23.00</b>	<b>60.5</b>	<b>39.5</b>
<b>Milorganite</b>								
6189	Sewerage Commission of the City of Milwaukee, Milwaukee, Wis. ....	Hamden: Hamden Chemical Co. ...	5.90 <sup>6</sup>	6.00	3.66 <sup>7</sup>	2.75	....	....
6547	Sewerage Commission of the City of Milwaukee, Milwaukee, Wis. ....	Norwalk: Libner Grain Co., Inc. ....	<b>5.68</b>	<b>6.00</b>	<b>3.21<sup>8</sup></b>	<b>2.75</b>	....	....

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Sand found, 13.34%.<sup>3</sup> Nitrogen in ammonia, 0.53%.<sup>4</sup> Nitrogen in ammonia, 0.50%.<sup>5</sup> State purchase.<sup>6</sup> Found: nitrogen in ammonia, 0.04%; nitrogen organic water-soluble, 0.32%; nitrogen organic insoluble, 5.54%.<sup>7</sup> Guaranteed "available" phosphoric acid, 2.0%; found, 2.81%.<sup>8</sup> Guaranteed "available" phosphoric acid, 2.0%; found, 2.46%.

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	<b>Agricultural Supply Co., West Haven, Conn.</b>	
6061	Yale Special Mixture 8-6-2 .....	New Haven .....
	<b>The American Agricultural Chemical Co., North Weymouth, Mass.</b>	
6448	AA Quality Fertilizer 5-5-15 .....	East Hartford .....
6589	AA Quality Fertilizer 5-8-7 .....	East Hartford .....
6449	AA Quality Fertilizer 5-10-5 .....	East Hartford .....
6279	AA Quality Fertilizer 5-10-10 .....	West Haven .....
6602	AA Quality Fertilizer 6-3-6 .....	East Hartford .....
6445	AA Quality Fertilizer 7-7-7 .....	East Hartford .....
6701	AA Quality Fertilizer 7-7-7 .....	East Hartford .....
6274	Agrico Country Club Fertilizer 6-10-4 .....	West Haven .....
6275	Agrico Country Club Fertilizer 8-6-2 .....	West Haven .....
6162	Agrico for Broadleaf Evergreens 6-10-4 .....	Greenwich .....
6446	Agrico for Corn 4-12-4 .....	East Hartford .....
6533	Agrico for Gardens 5-10-5 .....	Willimantic .....
6163	Agrico for Lawns, Trees and Shrubs 6-10-4 .....	Greenwich .....
6269	Agrico for New England 5-8-7 .....	Danbury .....
6232	Agrico for Potatoes 5-10-10 .....	Wallingford .....
6444	Agrico for Potatoes 5-10-10-1.2 .....	East Hartford .....
6214	Agrico for Seeding Down 3-12-12 .....	East Hartford .....
6215	Agrico for Tobacco 6-3-6 .....	East Hartford .....
6267	Agrico for Top Dressing 7-7-7 .....	Danbury .....
6447	Agrico for Truck 5-10-5 .....	East Hartford .....
6505	Agrico for Turf 6-8-2 .....	Hartford .....
6217	Agrico Phosphate and Potash 0-12-18 .....	East Hartford .....
6216	Agrico Phosphate and Potash 0-14-14 .....	East Hartford .....
6552	Agrico Rose Food 5-9-6 .....	Bridgeport .....
	<b>Apothecaries Hall Co., Waterbury, Conn.</b>	
6346	Liberty Fertilizer 0-14-14 .....	Watertown .....
6347	Liberty Fertilizer 0-20-20 .....	Watertown .....
6422	Liberty Fertilizer 3-12-12 .....	Windsorville .....
6348	Liberty Fertilizer 4-12-4 .....	Watertown .....
6165	Liberty Fertilizer 5-10-5 .....	Greenwich .....
6309	Liberty Fertilizer 5-10-10 .....	New Milford .....
6363	Liberty Fertilizer 5-10-10 with 1.2 Mg .....	Windsorville .....
6360	Liberty Fertilizer 6-8-8 with 1.2 Mg .....	Windsorville .....
6164	Liberty Green-Gro Fertilizer 6-7-4 .....	Greenwich .....
6167	Liberty High Grade Market Gardeners 5-8-7 .....	Greenwich .....
6361	Liberty High Grade Market Gardeners 5-8-7 with 1.2 Mg .....	Windsorville .....

<sup>1</sup> Deficiencies are in bold face type.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.14	4.86	2.20	0.60	7.80	0.37	7.15	6.78	2.17	2.58	....
0.41	3.54	0.12	0.69	4.76	1.05	6.92	5.87	0.90	13.76	....
0.00	4.44	0.10	0.22	4.76	0.60	8.75	8.15	3.71	6.56	....
0.00	4.54	0.14	0.30	4.98	0.95	11.08	10.13	4.32	5.04	....
0.61	4.12	0.12	0.11	4.96	1.00	11.00	10.00	7.14	7.64	....
0.35	0.84	2.92	1.80	5.91	0.40	3.80	3.40	0.86	6.98	....
0.47	5.40	0.04	0.37	6.28	0.62	9.08	8.46	7.56	8.63	....
0.54	5.56	0.34	0.46	6.90	0.57	8.18	7.61	6.92	7.18	....
0.37	4.52	0.24	0.87	6.00	0.90	11.25	10.35	4.04	4.04	....
0.81	5.04	0.52	1.75	8.12	0.65	6.80	6.15	2.04	2.04	....
0.58	4.82	0.10	0.52	6.02	0.82	11.05	10.23	3.39	4.08	....
0.00	3.64	0.08	0.18	3.90	1.30	13.15	11.85	4.12	4.12	....
0.00	4.74	0.09	0.17	5.00	0.97	11.32	10.35	4.52	5.20	....
0.54	4.42	0.28	0.80	6.04	0.97	11.23	10.26	3.40	3.82	....
0.00	5.00	0.00	0.16	5.16	0.75	9.10	8.35	6.68	6.68	....
0.60	4.04	0.12	0.08	4.84	0.78	11.05	10.27	10.38	10.38	....
0.00	4.84	0.06	0.18	5.08	0.65	10.65	10.00	9.97	10.64	1.51
0.00	2.92	0.06	0.06	3.04	0.70	13.07	12.37	12.26	12.26	....
0.42	0.56	2.66	2.54	6.18	0.25	3.75	3.50	0.45	5.84	....
0.48	5.80	0.12	0.55	6.95	0.67	8.10	7.43	5.40	7.22	....
0.00	4.50	0.20	0.21	4.91	0.97	10.60	9.63	3.34	5.14	....
0.00	2.86	0.64	2.50	6.00	0.75	9.82	9.07	2.64	2.64	....
....	....	....	....	....	0.60	13.15	12.55	16.53	17.86	....
....	....	....	....	....	0.42	14.30	13.88	13.82	14.62	....
0.52	2.38	0.50	1.67	5.07	1.15	10.32	9.17	6.04	6.38	....
....	....	....	....	....	0.40	15.53	15.13	12.80	14.62	....
....	....	....	....	....	0.25	19.65	19.40	17.95	21.12	....
1.37	1.76	0.00	0.06	3.19	0.27	13.30	13.03	10.17	13.12	....
0.57	3.06	0.34	0.41	4.38	1.45	14.00	12.55	3.71	4.16	....
0.52	4.20	0.20	0.48	5.40	0.72	11.25	10.53	4.44	5.22	....
0.63	4.20	0.20	0.30	5.33	0.65	12.18	11.53	9.18	10.28	....
0.00	4.40	0.31	0.37	5.08	0.47	11.95	11.48	9.44	10.22	2.71
0.46	5.30	0.06	0.35	6.17	0.45	9.70	9.25	8.36	9.00	2.52
0.50	4.56	0.30	0.94	6.30	0.25	9.50	9.25	3.93	4.88	....
0.49	4.18	0.06	0.53	5.26	0.25	10.02	9.77	6.83	7.98	....
0.41	4.22	0.10	0.63	5.36	0.00	9.78	9.78	6.18	7.36	2.61

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
<b>Apothecaries Hall Co.,—Cont'd. Waterbury, Conn.</b>		
6359	Liberty High Grade Market Gardeners with Sulphate of Potash 5-8-7 .....	Windsorville .....
6364	Liberty Landscape and Golf Course 8-6-2 .....	Windsorville .....
6350	Liberty Special for Fruit and Grass 7-7-7 .....	Torrington .....
6603	Liberty Tobacco Mixture 5-3-5 .....	Windsorville .....
6362	Liberty Tobacco Mixture 6-3-6 .....	Windsorville .....
6367	Liberty Tobacco Mixture with Castor Pomace 6-3-6 ..	Windsorville .....
6366	Liberty Tobacco Mixture with Cottonhull Ashes 6-3-6	Windsorville .....
6365	Liberty Tobacco Starter 4-10-0 .....	Windsorville .....
6702	Liberty Tobacco Starter 5-5-15 .....	Windsorville .....
<b>Armour Fertilizer Works, New York, N. Y.</b>		
6203	Armour's Big Crop Fertilizer 5-8-7 .....	East Windsor Hill ..
6204	Armour's Big Crop Fertilizer 5-10-10 .....	East Windsor Hill ..
6209	Armour's Big Crop Fertilizer 7-7-7 .....	East Windsor Hill ..
6210	Armour's Big Crop Fertilizer Tobacco Special 6-3-6 ..	East Windsor Hill ..
6161	Armour's Vertagreen Plant Food 5-10-5 .....	Greenwich .....
6703	Armour's Vertagreen Plant Food 5-10-5 .....	East Windsor Hill ..
6211	Armour's Vertagreen Plant Food for Commercial Crops 6-12-12 .....	East Windsor Hill ..
6206	Armour's Vertagreen Plant Food for Professional Use 10-6-4 .....	East Windsor Hill ..
<b>Associated Seed Growers, Inc., Milford, Conn.</b>		
6425	Asgrow Lawn Food 10-6-4 .....	Milford .....
6308	Japedizer 8-6-4 .....	New Milford .....
6426	Japedizer 8-6-4 .....	Milford .....
<b>The F. A. Bartlett Tree Expert Co., Stamford, Conn.</b>		
6252	Bartlett Green Tree Food 6-8-6 .....	Stamford .....
<b>Joseph Breck &amp; Sons Corp., Boston, Mass.</b>		
6354	Brexone Garden-Gro 5-10-10-1.2 .....	Torrington .....
6355	Brexone Turf-Gro 8-6-2 .....	Torrington .....
<b>Central Chemical Corp., Lebanon, Pa.</b>		
6495	Farmrite Gardenrite 5-10-5 .....	Hartford .....

<sup>1</sup> Deficiencies are in bold face type.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.43	4.32	0.14	0.40	5.29	0.27	9.35	9.08	0.76	8.04	....
0.38	7.28	0.18	0.77	8.61	0.32	6.93	6.61	2.86	2.86	....
0.41	6.48	0.16	0.45	7.50	0.37	8.33	7.96	7.48	7.68	....
1.36	0.04	1.46	2.50	5.36	0.22	4.50	4.28	1.29	7.48	....
1.08	0.04	2.44	2.48	6.04	0.22	5.08	4.86	0.43	7.26	....
1.13	0.10	2.16	3.28	6.67	0.07	3.44	3.37	0.31	7.94	....
1.32	0.16	1.84	2.84	6.16	0.12	5.58	5.46	0.47	6.60	....
0.72	2.16	1.60	0.65	4.13	0.87	13.20	12.33			....
1.04	0.68	1.94	1.72	5.38	0.47	6.63	6.16	1.33	14.74	....
0.36	4.10	0.14	0.27	4.87	0.77	9.23	8.46	6.98	7.66	....
0.35	4.36	0.00	0.23	4.94	0.72	11.18	10.46	8.93	9.06	....
0.57	6.24	0.08	0.25	7.14	0.55	8.03	7.48	6.29	7.32	....
0.51	1.08	2.04	2.02	5.65	0.32	3.89	3.57	0.84	6.36	....
0.17	4.52	0.18	0.27	5.14	0.90	12.40	11.50	3.51	4.96	....
0.16	4.58	0.26	0.18	5.18	1.10	11.33	10.23	3.39	5.00	....
0.52	5.24	0.06	0.12	5.94	0.52	13.55	13.03	9.37	11.06	....
0.50	6.96	0.40	1.38	9.24	0.67	8.22	7.55	4.44	4.78	....
0.11	4.44	4.16	1.54	10.25	0.40	6.83	6.43	3.51	4.80	....
1.12	5.80	0.12	1.43	8.47	0.40	7.05	6.65	3.79	4.92	....
0.24	4.76	1.78	1.40	8.18	0.25	7.33	7.08	4.40	6.66	....
0.45	4.76	0.34	0.22	5.77	0.57	9.50	8.93	5.49	7.04	....
0.93	3.30	....	0.23	4.46	1.00	13.45	12.45	7.94	10.24	1.77
0.72	5.76	0.24	0.58	7.30	0.75	8.65	7.90	0.16	2.12	....
0.74	3.68	0.20	0.16	4.78	0.50	11.02	10.52	4.73	5.56	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
<b>Consolidated Rendering Co., Boston, Mass.</b>		
6283	Corenco 0-14-14 Top Dresser .....	West Haven .....
6157	Corenco 4-12-4 Complete Manure .....	New Haven .....
6282	Corenco 4-12-16 Ladino Special .....	West Haven .....
6605	Corenco 5-5-15 Tobacco Starter .....	West Suffield .....
6158	Corenco 5-8-7 Potato and General Crop .....	New Haven .....
6284	Corenco 5-10-5 Home Garden .....	West Haven .....
6254	Corenco 5-10-5 Onion Special—Super Truck .....	Newtown .....
6312 <sup>2</sup>	Corenco 5-10-5 Onion Special—Super Truck .....	Southbury .....
6338 <sup>2</sup>	Corenco 5-10-5 Onion Special—Super Truck .....	Mt. Carmel .....
6043 <sup>2</sup>	Corenco 5-10-10 Peerless Potato .....	Cheshire .....
6159	Corenco 5-10-10 Peerless Potato .....	New Haven .....
6226 <sup>2</sup>	Corenco 5-10-10 Peerless Potato .....	Meriden .....
6562	Corenco 5-10-10-1.2 with Water Soluble Magnesium ..	Thompsonville .....
6568	Corenco 5-10-10-1.2 with Water Soluble Magnesium ..	West Suffield .....
6606	Corenco 6-3-6 Perfection Tobacco Grower .....	West Suffield .....
6285	Corenco 6-8-8 Potato Special .....	West Haven .....
6041 <sup>2</sup>	Corenco 7-7-7 Complete Fruit and Top Dressing .....	Cheshire .....
6171	Corenco 7-7-7 Complete Fruit and Top Dressing .....	Cos Cob .....
6228 <sup>2</sup>	Corenco 7-7-7 Complete Fruit and Top Dressing .....	Meriden .....
6064	Corenco 8-6-4 Landscape .....	Westville .....
6616	Corenco 8-6-4 Landscape .....	Darien .....
6557	Corenco Spurz-on 3.5-3.5-1.5 .....	Thompsonville .....
<b>The Davey Tree Expert Co., Kent, Ohio</b>		
6177	Davey Tree Food 12-4-4 .....	Old Greenwich .....
<b>R. G. Davis &amp; Sons, Inc., New Haven, Conn.</b>		
6069	"Organo" 10-5-5 .....	New Haven .....
<b>The Davison Chemical Corp., Baltimore, Md.</b>		
6538	Davco Granulated Fertilizer 0-14-14 .....	Norwich .....
6539	Davco Granulated Fertilizer 0-20-20 .....	Norwich .....
6535	Davco Granulated Fertilizer 5-8-7 .....	Norwich .....
6536	Davco Granulated Fertilizer 5-10-5 .....	Norwich .....
6289	Davco Granulated Fertilizer 5-10-10 .....	New Milford .....
6656	Davco Granulated Fertilizer 7-7-7 .....	Norwich .....
<b>The Doggett-Pfeil Co., Springfield, N. J.</b>		
6646	Clay's London Fertilizer 4-8-0 .....	Darien .....

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> State purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
.....	.....	.....	.....	.....	0.17	14.45	14.28	13.21	15.02	.....
0.90	3.00	0.12	0.15	4.17	1.22	13.15	11.93	3.67	5.08	.....
0.74	2.86	0.38	0.08	4.06	0.65	12.85	12.20	14.01	15.12	.....
0.69	0.12	2.28	1.91	5.00	0.22	5.92	5.70	0.80	15.08	.....
0.73	4.26	0.10	0.08	5.17	0.55	8.68	8.13	5.86	6.92	.....
0.82	4.08	0.00	0.10	5.00	0.85	11.00	10.15	5.53	5.92	.....
0.76	3.80	0.16	0.11	4.83	0.85	10.88	10.03	4.07	5.02	.....
1.00	4.14	0.00	0.10	5.24	0.85	11.15	10.30	4.29	5.20	.....
0.73	4.00	0.18	0.09	5.00	0.85	10.98	10.13	4.11	4.94	.....
0.89	4.34	0.13	0.18	5.54	0.67	11.00	10.33	9.56	10.07	.....
1.06	4.42	0.14	0.20	5.82	0.82	11.18	10.36	8.52	9.92	.....
1.15	4.42	0.04	0.16	5.77	0.67	11.00	10.33	9.18	10.02	.....
0.00	3.02	1.73	0.11	4.86	1.12	11.30	10.18	7.56	9.44	1.40
0.61	4.36	0.18	0.25	5.40	0.45	10.78	10.33	9.52	12.04	1.10
0.59	0.04	2.26	3.53	6.42	0.25	4.19	3.94	1.54	6.29	.....
0.86	5.36	0.08	0.14	6.44	0.50	9.30	8.80	7.84	8.92	.....
0.37	5.76	0.58	0.23	6.94	0.08	8.18	8.10	6.49	7.34	.....
0.72	3.52	1.08	0.18	5.50	0.75	10.75	10.00	5.69	6.56	.....
0.68	5.96	0.38	0.25	7.27	0.18	8.28	8.10	6.21	8.22	.....
0.24	5.02	2.20	0.68	8.14	0.47	6.62	6.15	3.51	4.48	.....
0.00	4.72	2.28	0.68	7.68	0.42	6.67	6.25	3.75	4.08	.....
0.54	0.86	1.58	1.96	4.94	.....	4.18	.....	0.88	2.14	.....
1.15	9.82	0.14	0.95	12.06	0.35	4.69	4.34	3.40	4.52	.....
0.37	6.20	2.20	1.21	9.98	0.35	5.62	5.27	5.13	6.08	.....
.....	.....	.....	.....	.....	0.62	15.22	14.60	13.76	14.59	.....
.....	.....	.....	.....	.....	0.52	20.05	19.53	20.00	20.00	.....
0.45	5.00	0.00	0.05	5.50	0.45	9.00	8.55	6.91	6.91	.....
0.36	4.70	0.00	0.06	5.12	0.52	10.60	10.08	5.38	5.58	.....
0.28	4.80	0.10	0.04	5.22	0.55	11.18	10.63	9.50	10.00	.....
0.00	7.57	0.00	0.07	7.64	0.25	7.72	7.47	5.75	6.76	.....
0.19	2.72	0.14	1.56	4.61	2.02	10.15	8.13	.....	.....	.....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	<b>The Doughten Seed Co., Jersey City, N. J.</b>	
6493	Faith Soil Food with Insect Control 5-9-4 .....	Hartford .....
	<b>Eastern States Farmers' Exchange, Inc., West Springfield, Mass.</b>	
6051 <sup>2</sup>	Eastern States 0-19-19 with Borax .....	North Haven .....
6255	Eastern States 0-20-20 .....	Bethel .....
6200	Eastern States 5-10-10-0.6 .....	East Hartford .....
6197	Eastern States 5-15-15-0.6 .....	East Hartford .....
6358	Eastern States 6-4-6-1.2 Tobacco .....	South Windsor .....
6199	Eastern States 8-4-8-1.2 Tobacco .....	East Hartford .....
6357	Eastern States 8-12-12-1.2 L. C. ....	East Hartford .....
6288	Eastern States 8-12-12-1.2 S. M. ....	New Milford .....
6256	Eastern States 8-16-8-0.6 .....	Bethel .....
6198	Eastern States 8-16-16-0.6 .....	East Hartford .....
6287	Eastern States 10-10-10-0.6 .....	New Milford .....
6257	Eastern States Plant Starter 10-52-17 .....	Bethel .....
	<b>The Espoma Co., Millville, N. J.</b>	
6231	Espoma 3-2-1 .....	Yalesville .....
6611	Holly-Tone 4-6-4 .....	Greenwich .....
	<b>Faesy &amp; Besthoff, Inc., New York, N. Y.</b>	
6058	High Organic Pelletized All-Purpose 6-12-6 .....	Pawcatuck .....
	<b>Fox Point Chemical Co., East Providence, R. I.</b>	
6581	Old Fox Brand 0-12-24 .....	Pawcatuck .....
6582	Old Fox Brand 0-20-20 .....	Pawcatuck .....
6583	Old Fox Brand 4-12-8 .....	Pawcatuck .....
6059	Old Fox Brand 5-8-7 .....	Pawcatuck .....
6579	Old Fox Brand 5-10-10-0.6 .....	Groton .....
6060	Old Fox Brand 7-7-7 .....	Pawcatuck .....
	<b>Goulard &amp; Olena, Inc., Skillman, N. J.</b>	
6494	Feedz-N'-Weedz with 2-4,D 6-10-4 .....	Hartford .....
6498	G & O Dahlia, Lily, Gladiola 5-6-15 .....	Hartford .....
6569	G & O Rose Food 7-8-5 .....	Windsor Locks .....
	<b>Heeman Manufacturing Co., Wooster, Ohio</b>	
6233	Wooster Lawn Builder with 2-4,D 8-8-4 .....	Wallingford .....
6246	Wooster Plant Builder 6-10-4 .....	Stamford .....

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Boron found, 0.62%; guaranteed, 0.3-0.6%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.38	1.48	0.32	2.95	5.13	0.47	9.85	9.38	3.42	5.06	....
....	....	....	....	....	0.77	18.10	17.33	17.12	20.90	....
....	....	....	....	....	0.52	20.45	19.93	17.38	19.92	....
0.88	3.98	0.15	0.15	5.16	0.67	11.18	10.51	9.30	10.08	1.54
1.25	3.68	0.14	0.10	5.17	1.15	15.70	14.55	15.71	16.02	1.73
2.23	0.72	1.64	1.53	6.12	0.50	5.31	4.81	1.02	7.12	2.32
0.30	0.84	3.56	3.50	8.20	0.22	4.75	4.53	1.12	8.29	1.90
1.54	6.32	0.16	0.16	8.18	0.45	12.83	12.38	1.49	12.38	1.92
1.28	6.16	0.08	0.13	7.65	0.50	14.03	13.53	9.08	12.34	1.72
1.54	6.56	0.12	0.13	8.35	0.70	16.70	16.00	6.49	8.30	1.17
0.00	6.28	1.81	0.12	8.21	0.60	16.50	15.90	14.51	16.68	1.25
0.93	8.60	0.28	0.11	9.92	0.52	12.13	11.61	9.09	9.96	1.46
0.00	9.60	0.00	0.00	9.60	0.02	52.40	52.38	0.00	18.24	....
0.00	1.66	0.51	1.37	3.54	0.30	3.10	2.80	1.67	2.75	....
0.20	1.36	0.71	1.61	3.79	0.37	6.90	6.53	3.24	4.62	....
0.61	3.62	0.33	1.66	6.22	1.42	13.53	12.11	5.24	5.96	....
....	....	....	....	....	0.65	13.48	12.83	19.87	24.06	....
....	....	....	....	....	0.42	16.45	16.03	17.17	19.16	....
0.66	2.56	0.68	0.10	4.00	1.25	13.00	11.75	7.40	8.12	....
0.49	4.52	0.16	0.12	5.29	1.40	8.85	7.45	6.38	7.80	....
0.27	5.00	0.02	0.11	5.40	0.35	10.58	10.23	8.27	10.36	2.15
0.47	6.30	0.10	0.08	6.95	0.65	7.85	7.20	7.16	7.94	....
1.12	3.46	0.28	0.96	5.82	0.77	11.32	10.55	3.64	4.56	....
0.00	3.34	0.65	1.71	5.70	0.40	6.72	6.32	15.16	16.45	....
1.03	5.60	0.00	1.35	7.98	0.50	9.15	8.65	5.16	6.20	....
0.16	3.48	0.52	3.23	7.39	0.55	14.23	13.68	0.47	2.12	....
0.00	4.88	0.41	2.11	7.40	0.43	11.02	10.59	4.71	5.10	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	<b>The Mamlon Co., New Haven, Conn.</b>	
6286	FER-MEL Water Soluble Turf Food 25-15-10 .....	New Haven .....
	<b>McCormick &amp; Co., Inc., Baltimore, Md.</b>	
6490	HY-GRO 13-26-13 .....	Berlin .....
	<b>"Na-Churs" Plant Food Co., Marion, Ohio</b>	
6339	"Na-Churs" Liquid Fertilizer 5-5-10 .....	Hamden .....
	<b>Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.</b>	
6679	Old Deerfield 5-5-15 Tobacco Starter .....	South Deerfield .....
6680	Old Deerfield 5-8-7 Fertilizer .....	South Deerfield .....
6682	Old Deerfield 5-10-5 Fertilizer .....	South Deerfield .....
6015	Old Deerfield 5-10-10 Fertilizer .....	Glastonbury .....
6565	Old Deerfield 6-3-6 Complete Tobacco Fertilizer ....	West Suffield .....
6681	Old Deerfield 7-7-7 Fertilizer .....	South Deerfield .....
6685	Old Deerfield Lawnshrub Fertilizer 6-5-5 .....	South Deerfield .....
	<b>Olds &amp; Whipple, Inc., Hartford, Conn.</b>	
6488	O & W 0-14-14 Fertilizer .....	East Hartford .....
6048 <sup>2</sup>	O & W 0-20-20 Fertilizer .....	Cheshire .....
6272 <sup>2</sup>	O & W 0-20-20 Fertilizer .....	Newtown .....
6580	O & W 4-8-4 Complete Lawn and Grass Fertilizer ....	Mystic .....
6456	O & W 4-12-4 Market Garden Fertilizer .....	East Hartford .....
6453 <sup>3</sup>	O & W 5-3-5 Complete Tobacco Fertilizer-Potash de- rived from Cotton Hull Ash .....	East Hartford .....
6452	O & W 5-5-15 High Grade Tobacco Starter .....	East Hartford .....
6458	O & W 5-8-6 Luxura .....	East Hartford .....
6042 <sup>2</sup>	O & W 5-8-7 Potato and General Purpose Fertilizer ..	Cheshire .....
6515	O & W 5-8-7 Potato and General Purpose Fertilizer ..	Manchester .....
6459	O & W 5-8-7 Potato and General Purpose Fertilizer with Sulphate of Potash .....	East Hartford .....
6451	O & W 5-10-10 Potato Fertilizer .....	East Hartford .....
6457	O & W 5-10-10 Potato Fertilizer with 1.2% Mg .....	East Hartford .....
6455	O & W 6-3-6 Blue Label Tobacco Fertilizer .....	East Hartford .....
6450 <sup>3</sup>	O & W 6-3-6 Blue Label Tobacco Fertilizer - Potash derived from Cotton Hull Ash .....	East Hartford .....
6454	O & W 7-7-7 Top Dressing and Grass Fertilizer ....	East Hartford .....

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> State purchases.<sup>3</sup> Copper guaranteed, 0.13%; found, 0.12%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
4.48	3.24	18.32	0.04	26.08	0.00	15.78	15.78	0.00	11.56	....
2.64	4.42	7.00	0.83	14.89	0.00	30.75	30.75	10.15	13.36	....
3.19	2.12	0.07	0.00	5.38	0.00	6.40	6.40	0.00	9.30	....
1.38	0.80	1.69	1.23	5.10	0.55	6.62	6.07	1.52	17.26	....
0.88	3.46	1.06	0.26	5.66	0.75	8.95	8.20	5.53	6.98	....
0.23	4.12	0.82	0.18	5.35	0.70	10.78	10.08	4.19	5.10	....
1.23	4.00	0.04	0.11	5.38	0.55	11.25	10.70	7.14	10.76	....
0.84	0.94	1.44	3.34	6.56	0.30	4.33	4.03	0.96	7.30	....
0.89	5.82	0.34	0.17	7.22	0.45	7.95	7.50	6.68	7.04	....
0.82	4.00	0.92	1.13	6.87	0.37	5.90	5.53	3.87	5.30	....
....	....	....	....	....	0.80	15.47	14.67	3.65	14.10	....
....	....	....	....	....	0.35	20.10	19.75	19.24	22.34	....
....	....	....	....	....	0.40	21.05	20.65	17.53	20.02	....
1.01	2.56	0.22	0.77	4.56	0.55	8.72	8.17	3.85	4.66	....
0.37	3.40	0.44	0.41	4.62	0.72	13.67	12.95	3.50	5.24	....
0.63	0.20	1.52	2.85	5.20	0.17	4.38	4.21	0.49	5.14	....
1.45	0.18	0.58	1.39	4.60	0.67	7.25	6.58	1.24	15.58	....
0.72	2.40	0.44	1.83	5.39	0.92	10.50	9.58	3.61	6.16	....
0.51	4.24	0.26	0.37	5.38	0.30	9.00	8.70	7.50	9.08	....
0.60	4.22	0.08	0.35	5.25	0.25	9.27	9.02	6.69	7.19	....
0.00	3.28	1.96	0.38	5.62	0.30	8.42	8.12	0.61	8.11	....
0.68	4.00	0.36	0.38	5.42	0.57	11.20	10.63	9.12	10.42	....
0.68	4.28	0.00	0.44	5.40	0.60	11.27	10.67	9.21	11.16	1.42
0.62	0.20	1.80	3.64	6.26	0.05	3.46	3.41	0.27	6.48	....
0.62	0.16	1.84	3.38	6.00	0.10	4.01	3.91	0.65	6.80	....
1.06	5.20	0.88	0.36	7.50	0.12	7.95	7.83	7.35	7.48	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	<b>Pedigreed Seed Co., New York, N. Y.</b>	
6649	Lofts Lawn Food 8-12-4 . . . . .	Bridgeport . . . . .
	<b>The Frank S. Platt Co., Inc., New Haven, Conn.</b>	
6193	Platt's Special 10-5-5 Lawn Fertilizer . . . . .	New Haven . . . . .
	<b>Ra-Pid-Gro Corp., Danville, N. Y.</b>	
6194	Ra-Pid-Gro 23-21-17 . . . . .	Wethersfield . . . . .
	<b>The Rogers &amp; Hubbard Co., Portland, Conn.</b>	
6430	Gro-Fast Acid Fertilizer 4-10-4 . . . . .	Portland . . . . .
6179	Gro-Fast Plant Food 5-10-5 . . . . .	Darien . . . . .
6356	Gro-Fast Rose Food 7-10-5 . . . . .	Waterville . . . . .
6131	Gro-Fast Rose Food 7-10-5 . . . . .	Portland . . . . .
6432	Hubbard 6-8-8 for Potatoes . . . . .	Portland . . . . .
6304	Hubbard Alfalfa Fertilizer 0-14-14 . . . . .	New Milford . . . . .
6428 <sup>2</sup>	Hubbard Alfalfa Fertilizer 0-14-14 with 0.55 Boron . .	Portland . . . . .
6306	Hubbard Corn Fertilizer 4-12-4 . . . . .	New Milford . . . . .
6437	Hubbard Dairy Fertilizer 0-10-20 . . . . .	Portland . . . . .
6311 <sup>3</sup>	Hubbard Double Strength Fertilizer 8-16-16 . . . . .	Southbury . . . . .
6433	Hubbard Double Strength Fertilizer 8-16-16 . . . . .	Portland . . . . .
6313 <sup>3</sup>	Hubbard Fertilizer 10-5-5 . . . . .	Southbury . . . . .
6310 <sup>3</sup>	Hubbard Fertilizer 10-10-10 . . . . .	Southbury . . . . .
6336 <sup>3</sup>	Hubbard Fertilizer 10-10-10 . . . . .	Mt. Carmel . . . . .
6038	Hubbard Garden Fertilizer 5-10-5 . . . . .	Southport . . . . .
6424 <sup>3</sup>	Hubbard Garden Fertilizer 5-10-5 . . . . .	Shelton . . . . .
6512 <sup>3</sup>	Hubbard Garden Fertilizer 5-10-5 . . . . .	Windsor . . . . .
6039	Hubbard General Crop Fertilizer 5-10-10 . . . . .	Southport . . . . .
6196 <sup>3</sup>	Hubbard General Crop Fertilizer 5-10-10 . . . . .	Wethersfield . . . . .
6337 <sup>3</sup>	Hubbard General Crop Fertilizer 5-10-10 . . . . .	Mt. Carmel . . . . .
6037	Hubbard Golf Course Fertilizer 8-6-2 . . . . .	Southport . . . . .
6438	Hubbard High Potash Fertilizer 5-10-10 . . . . .	Portland . . . . .
6305	Hubbard Potato Fertilizer 5-8-7 . . . . .	New Milford . . . . .
6429	Hubbard Seeding Fertilizer 3-12-12 . . . . .	Portland . . . . .
6307	Hubbard Tobacco Grower 6-3-6 . . . . .	New Milford . . . . .
6220	Hubbard Top Dressing 7-7-7 . . . . .	Meriden . . . . .
6604	Hubbard Valley Brand 6-3-6 . . . . .	Suffield . . . . .
6040	Hubbard Vegetable Fertilizer 5-8-7 . . . . .	Southport . . . . .
6491	Hubbard Weed-Kil Lawn Food 6-10-4 . . . . .	Berlin . . . . .

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Boron found, 0.526%.<sup>3</sup> State purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
1.68	5.00	1.06	1.58	9.32	1.02	12.23	11.21	3.28	4.48	....
0.11	5.16	3.80	1.52	10.59	0.45	5.88	5.43	4.64	5.16	....
4.89	4.00	14.88	0.03	23.80	0.00	18.97	18.97	0.00	17.02	....
0.00	2.04	0.75	1.51	4.30	0.42	11.30	10.88	3.80	4.52	....
0.12	2.84	1.22	1.35	5.53	0.45	10.88	10.43	5.01	5.62	....
0.00	3.62	1.02	1.87	6.51	1.50	12.43	10.93	1.08	6.44	....
0.00	3.22	1.36	1.71	6.29	1.07	13.58	12.51	0.97	6.20	....
0.66	5.06	0.52	0.19	6.43	0.42	9.35	8.93	7.62	8.28	....
....	....	....	....	....	0.40	14.60	14.20	11.84	14.02	....
....	....	....	....	....	0.22	14.98	14.76	12.76	13.86	....
0.94	3.20	0.16	0.20	4.50	1.45	12.98	11.53	3.99	4.62	....
....	....	....	....	....	0.10	11.18	11.08	16.48	18.62	....
0.68	7.06	0.18	0.20	8.12	0.45	15.93	15.48	13.42	15.38	....
0.97	6.22	0.58	0.31	8.08	0.42	16.45	16.03	15.50	16.22	....
0.40	4.86	3.54	0.15	8.95	0.27	6.50	6.23	5.09	5.78	....
0.68	9.36	0.24	0.12	10.40	0.22	10.53	10.31	9.20	10.38	....
0.76	9.32	0.28	0.07	10.43	0.27	10.75	10.48	9.20	10.06	....
0.62	4.52	0.20	0.19	5.53	0.90	11.38	10.48	5.34	5.42	....
0.71	4.30	0.26	0.16	5.43	0.92	11.38	10.46	4.86	6.74	....
0.63	4.56	0.06	0.15	5.40	0.87	11.55	10.68	5.13	5.58	....
0.73	4.08	0.60	0.21	5.62	1.15	10.92	9.77	7.11	10.66	....
0.60	4.48	0.00	0.20	5.28	1.12	11.20	10.08	9.79	10.46	....
0.80	4.16	0.18	0.20	5.34	1.10	11.18	10.08	9.38	10.26	....
0.19	4.42	1.82	1.81	8.24	0.35	7.20	6.85	2.46	3.18	....
0.74	2.96	0.60	1.20	5.50	1.07	11.28	10.21	8.36	9.42	....
0.44	2.60	0.94	1.43	5.41	0.42	8.65	8.23	4.60	7.26	....
0.59	2.54	0.14	0.23	3.50	1.15	13.03	11.88	11.42	12.14	....
0.77	0.12	2.20	3.10	6.19	0.20	3.88	3.68	0.66	6.88	....
0.72	6.28	0.10	0.14	7.24	0.00	8.37	8.37	6.38	7.18	....
0.67	0.10	2.44	2.81	6.02	0.15	4.41	4.26	0.84	8.00	....
0.64	4.26	0.14	0.28	5.32	0.75	9.55	8.80	6.51	7.02	....
0.51	4.00	1.00	0.77	6.28	1.50	11.60	10.10	4.93	5.42	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	<b>Rose Manufacturing Co., Beacon, N. Y.</b>	
6609	Triogen Rose Food 5-10-5 .....	Greenwich .....
	<b>O. M. Scott &amp; Sons Co., Marysville, Ohio</b>	
6067	Scott's Turf Builder 9-7-4 .....	Westville .....
6223	Scott's Weed and Feed 7-11-5 .....	Meriden .....
	<b>Sears, Roebuck &amp; Co., Chicago, Ill.</b>	
6249 <sup>2</sup>	Cross Country Plant Food 5-10-5-0.03 .....	Stamford .....
	<b>M. L. Shoemaker, Inc., Div. Wilson &amp; Co., Philadelphia, Pa.</b>	
6439	M. L. Shoemaker's "Swift-Sure" Tobacco Starter 4-10-0 .....	Portland .....
	<b>The Smith Agricultural Chemical Co., Columbus, Ohio</b>	
6648	Wedo with 2,4-D 6-10-4 .....	Fairfield .....
	<b>Stumpp &amp; Walter Co., New York, N. Y.</b>	
6241	Sawco Economy Fertilizer 5-10-5 .....	Stamford .....
6239	Sawco Emerald Grass Fertilizer 6-10-4 .....	Stamford .....
6612	Sawco General Garden Fertilizer 4-12-4 .....	Stamford .....
6240	Sawco General Garden Fertilizer 5-10-5 .....	Stamford .....
6243	Sawco Golf Fertilizer 8-6-2 .....	Stamford .....
6615	Sawco Rose Food 4-12-4 .....	Stamford .....
6245	Sawco Treewiz 8-6-2 .....	Stamford .....
	<b>Swift &amp; Co., Boston, Mass.</b>	
6056	Brimm 5-10-10 .....	Pawcatuck .....
6057	Red Steer 5-8-7 .....	Pawcatuck .....
6506	Red Steer 10-6-4 .....	Hartford .....
6704	Red Steer 10-6-4 .....	Hartford .....
6188	Vigoro 5-10-5 .....	Hamden .....
	<b>Tennessee Corp., Lockland, Ohio</b>	
6608 <sup>3</sup>	Loma 8-8-8 Mineralized .....	Greenwich .....

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Boron guaranteed, 0.028%; found, 0.019%; copper guaranteed, 0.06%; found, 0.021%; iron guaranteed, 0.037%; found, 0.41%; manganese guaranteed, 0.09%; found, 0.028%; zinc guaranteed, 0.06%; found, 0.022%; magnesium guaranteed, 0.03%; found, 2.96%.<sup>3</sup> Boron guaranteed, 0.05%; found, 0.065%; copper guaranteed, 0.15%; found, 0.13%; iron guaranteed, 0.20%; found, 0.31%; manganese guaranteed, 0.50%; found, 0.67%; zinc guaranteed, 0.20%; found, 0.17%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.79	3.32	0.74	0.34	5.19	1.37	12.00	10.63	0.90	5.28	....
0.31	6.36	0.58	2.28	9.53	0.47	8.12	7.65	3.79	4.92	....
0.00	3.76	0.39	3.16	7.31	0.40	12.47	12.07	5.33	6.26	....
1.19	3.56	0.06	0.10	4.91	0.77	10.80	10.03	4.33	4.86	2.96
0.58	2.40	0.60	0.68	4.26	1.05	11.43	10.38	....	....	....
0.52	4.62	0.10	1.04	6.28	0.62	11.60	10.98	3.77	4.00	....
0.73	4.02	0.02	0.25	5.02	0.35	10.60	10.25	6.01	6.50	....
1.82	3.50	0.00	0.34	5.66	0.55	10.55	10.00	4.90	5.10	....
0.75	3.88	0.10	0.24	4.97	0.87	10.57	9.70	5.33	6.48	....
0.90	3.82	0.26	0.24	5.22	0.80	10.97	10.17	5.53	6.02	....
2.18	4.26	0.34	0.16	6.94	0.23	6.25	6.02	3.61	4.04	....
0.80	3.92	0.14	0.24	5.10	0.75	10.55	9.80	5.09	5.82	....
0.00	4.20	1.58	0.29	6.07	0.73	7.50	6.77	2.34	3.14	....
0.13	4.62	0.12	0.24	5.11	0.90	10.95	10.05	8.80	10.48	....
0.36	4.30	0.14	0.16	4.96	0.70	9.28	8.58	6.57	7.62	....
0.55	8.18	0.16	0.15	9.04	0.50	7.70	7.20	4.18	4.18	....
0.32	8.42	0.02	0.16	8.92	0.37	7.55	7.18	4.40	4.50	....
0.43	4.46	0.06	0.09	5.04	0.35	10.35	10.00	4.53	6.88	....
0.84	6.56	0.22	0.38	8.00	0.45	9.15	8.70	6.68	8.00	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	<b>The Terre Co., Rochelle Park, N. J.</b>	
6619	Terre Lawn-Spur 8-6-5 .....	Darien .....
6620	Terre Rodo-Gro 6-4-4 .....	Darien .....
	<b>Universal Chemical Co., Lynn, Mass.</b>	
6513	Electra Plant Food 5-10-3 .....	Bloomfield .....
	<b>Oscar F. Warner, Waterbury, Conn.</b>	
6345	Warner's Grubedizer 8-6-4 .....	Waterbury .....
6341	Warner's Lawn Fertilizer 8-6-4 .....	Waterbury .....
6340	Warner's Tree Food 12-6-4 .....	Waterbury .....
	<b>Garfield Williamson, Inc., Jersey City, N. J.</b>	
6178	Plantspur 4-4-2 .....	Darien .....
	<b>F. H. Woodruff &amp; Sons, Inc., Milford, Conn.</b>	
6247	Gro-Sod Lawn Food 10-6-4 .....	Stamford .....
	<b>Woodruff Fertilizer Works, Inc., North Haven, Conn.</b>	
6180 <sup>2</sup>	Woodruff's 0-14-14 Fertilizer with 0.11% Boron .....	Hamden .....
6187	Woodruff's 5-8-7 Fertilizer .....	Hamden .....
6186	Woodruff's 5-10-10 Fertilizer .....	Hamden .....
6335	Woodruff's 6-8-8 Fertilizer .....	North Haven .....
6330	Woodruff's 7-7-7 Fertilizer .....	North Haven .....
6063	Woodruff's Lawn and Tree Food 10-6-4 .....	Westville .....
6190	Woodruff's Lawn and Tree Food 10-6-4 .....	Hamden .....
6553	Woodruff's Tobacco Fertilizer with Cottonseed Base 6-3-6 .....	North Haven .....
6554	Woodruff's Tobacco Fertilizer with Pomace Base 6-3-6 .....	North Haven .....
6564	Woodruff's Tobacco Starter 5-5-15 .....	Suffield .....

<sup>1</sup>Deficiencies are in bold face type.<sup>2</sup>Boron found, 0.114%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.71	2.06	2.76	2.36	7.89	0.42	6.65	6.23	5.24	6.58	.....
0.25	1.56	1.34	2.62	5.77	0.27	4.24	3.97	0.19	3.80	.....
0.60	2.80	0.20	2.03	5.63	0.45	10.12	9.67	3.36	3.44	.....
0.00	1.88	3.40	2.83	8.11	0.50	6.43	5.93	3.76	4.12	.....
0.64	2.04	3.10	3.04	8.82	0.60	6.55	5.95	4.29	4.70	.....
0.86	2.10	5.66	2.42	11.04	0.40	6.33	5.93	3.76	4.12	.....
0.27	3.06	0.30	0.72	4.35	0.15	5.93	5.78	1.81	2.38	.....
0.91	4.20	2.64	1.52	9.27	0.58	7.17	6.59	3.73	5.02	.....
.....	.....	.....	.....	.....	1.07	13.50	12.43	14.01	15.60	.....
0.71	3.54	0.38	0.23	4.86	0.37	8.55	8.18	6.23	7.18	.....
0.76	3.60	0.52	0.17	5.05	0.40	10.20	9.80	7.81	9.22	.....
0.00	4.06	1.50	0.28	5.84	0.30	8.35	8.05	7.28	8.24	.....
0.67	4.96	0.62	0.15	6.40	0.30	7.93	7.63	6.05	7.34	.....
0.86	3.76	4.40	0.27	9.29	0.42	6.78	6.36	3.54	4.10	.....
0.43	3.88	4.80	0.42	9.53	0.45	6.80	6.35	3.50	4.36	.....
1.56	0.16	1.76	2.66	6.14	0.27	3.84	3.57	0.52	6.82	.....
1.29	0.32	2.18	2.09	5.88	0.22	3.85	3.63	0.51	7.00	.....
1.48	0.42	1.98	1.03	4.91	0.12	5.72	5.60	0.80	15.18	.....

TABLE 6. ANALYSES OF SHEEP MANURE, ETC.<sup>1</sup>

Station No.	Manufacturer and brand	Place of sampling
6259	Pulverized Sheep Manure. The American Agricultural Chemical Co., North Weymouth, Mass. ....	Bethel: Marble & Risser .....
6166	Sheep Manure. Apothecaries Hall Co., Waterbury, Conn. ....	Greenwich: McArdle's Seed Store .....
6540	Armour's Pulverized Sheep Manure. Armour Fertilizer Works, New York, N. Y. ....	Norwich: Checkerboard Feed Store .....
6062	DRICONURE. Atkins & Durbrow, Inc., New York, N. Y. ....	New Haven: Lightbourn & Pond Co. ....
6070	Corenco Sheep Manure. Consolidated Rendering Co., Boston, Mass. ....	New Haven: R. G. Davis & Sons, Inc. ....
6176	Davey Shredded Manure. The Davey Tree Expert Co., Kent, Ohio ....	Old Greenwich: The Davey Tree Expert Co. ....
6504	Sheep Manure. Olds & Whipple, Inc., Hartford, Conn. ....	Hartford: Cadwell & Jones, Inc. ....
6349	Premier-Nure. Premier Peat Moss Corp., New York, N. Y. ....	Torrington: Washington Supply Co., Inc. ....
6263	Wizard Brand Cow Manure. The Pulverized Manure Co., Chicago, Ill. ....	Danbury: H. E. Meeker .....
6262	Wizard Brand Pulverized Sheep Manure. The Pulverized Manure Co., Chicago, Ill. ....	Danbury: H. E. Meeker .....
6229	Gro-Fast Cow Manure. The Rogers & Hubbard Co., Portland, Conn. ....	Meriden: The J. E. Raven Hardware Co. ....
6221	Gro-Fast Sheep Manure. The Rogers & Hubbard Co., Portland, Conn. ....	Meriden: Church-Morse, Inc. .
6250	Cross Country Cattle Manure. Sears, Roebuck & Co., Chicago, Ill. ....	Stamford: Sears, Roebuck & Co.
6248	Cross Country Sheep Manure. Sears, Roebuck & Co., Chicago, Ill. ....	Stamford: Sears, Roebuck & Co.
6160	Farmanure. Wendell S. Still, Selden, N. Y. .	New Haven: R. G. Davis & Sons, Inc. ....
6242	Sawconure. Stumpp & Walter Co., New York, N. Y. ....	Stamford: Stumpp & Walter Co. ....
6542	Sheep Manure. Swift & Co., Chicago, Ill. ....	Norwalk: Libner Grain Co., Inc. ....
6260	Bovung. Walker-Gordon Laboratory Co., Plainsboro, N. J. ....	Bethel: Marble & Risser .....

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Guaranteed available, 1%.<sup>3</sup> Guaranteed available, 0.8%.

TABLE 6. ANALYSES OF SHEEP MANURE, ETC.<sup>1</sup>

Per cent nitrogen					Per cent phosphoric acid				Per cent potash		Sand
In ammonia	Organic water-soluble	Organic water-insoluble	Total found	Total guaranteed	Citrate-insoluble	Total found	Total guaranteed	So-called "available" found	Total found	Total guaranteed	
0.00	0.29	1.16	1.45	1.25	0.27	1.40	1.00	1.13	2.75	2.00	41.94
0.04	0.68	0.88	1.60	1.00	0.07	0.40	0.25	0.33	3.24	1.00	43.71
0.02	0.45	1.41	1.88	1.50	....	1.53	1.00	....	1.96	2.00	33.04
0.32	1.22	2.14	3.68	2.00	0.70	2.89	....	2.19 <sup>2</sup>	2.86	1.00	6.12
0.00	0.41	1.39	1.80	2.00	0.45	1.56	....	1.11 <sup>2</sup>	2.14	2.00	24.35
0.44	1.13	2.00	3.57	2.00	0.85	2.90	....	2.05 <sup>2</sup>	1.85	1.00	9.25
0.04	0.21	1.30	1.55	1.25	....	1.68	1.00	....	2.38	2.00	32.63
0.12	0.62	1.37	2.11	2.00	0.35	2.56	....	2.21 <sup>2</sup>	1.63	1.00	22.94
0.06	0.57	1.63	2.26	2.00	0.25	1.48	....	1.23 <sup>2</sup>	2.62	1.00	13.28
0.02	0.77	1.47	2.26	2.00	0.17	1.99	....	1.82 <sup>2</sup>	2.83	2.00	10.11
0.12	0.65	1.71	2.48	2.00	0.20	1.59	....	1.39 <sup>2</sup>	2.24	1.00	7.53
0.00	0.10	1.07	1.27	1.25	....	1.03	1.00	....	2.21	2.00	34.36
0.04	0.30	1.70	2.04	1.75	0.35	1.54	....	1.19 <sup>3</sup>	2.15	2.00	17.92
0.04	0.21	1.13	1.38	1.50	0.28	1.44	....	1.16 <sup>2</sup>	3.00	2.00	40.21
0.40	1.11	2.33	3.84	2.00	0.60	2.79	....	2.19 <sup>2</sup>	2.52	1.00	4.20
0.22	0.51	1.39	2.12	2.00	0.25	4.90	....	4.65 <sup>2</sup>	2.33	1.00	21.06
0.02	0.40	1.58	2.00	2.00	0.27	1.68	....	1.41 <sup>2</sup>	2.60	2.00	25.99
0.00	0.62	1.40	2.02	2.00	0.32	2.21	....	1.89 <sup>2</sup>	2.64	1.00	3.88

TABLE 7. ANALYSES OF LIMESTONE AND SIMILAR MATERIALS

Station No.	Manufacturer and brand	Sampled from stock of or sent by	Calcium oxide, per cent	Magnesium oxide, per cent
5115	Connecticut Adamant Plaster Co., New Haven, Conn. Land Plaster	Simsbury; Cullman Bros.	33.34	.....
4905	New England Lime Co., Canaan, Conn. Lime	Simsbury; Cullman Bros.	45.50 <sup>1</sup>	31.00 <sup>2</sup>
5157	Agricultural Lime	Simsbury; Cullman Bros.	44.43 <sup>1</sup>	31.36 <sup>2</sup>
5335	Agricultural Hydrated Lime	Simsbury; Cullman Bros.	46.29	31.91
5770	High Calcium Hydrated Lime	Simsbury; Cullman Bros.	70.97	0.52
5651	Olds & Whipple, Inc., Hartford, Conn. Land Plaster	Simsbury; Cullman Bros.	34.71	.....
5771	Land Plaster	Simsbury; Cullman Bros.	33.57	.....
6623	The Terre Co., Rochelle Park, N. J. Terre Ground-Tone	Darien; Brookside Nurseries	39.70 <sup>3</sup>	3.65

<sup>1</sup>Guaranteed, 47.00%.  
<sup>2</sup>Guaranteed, 31.00%.  
<sup>3</sup>Carbon dioxide, 23.53%; sulphur trioxide, 16.14%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZER<sup>1</sup>

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen					Per cent phosphoric acid			Per cent potash	
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total
6427 <sup>2</sup>	Armour Fertilizer Works, New York, N. Y.	Orange	0.23	0.00	0.24	1.16	1.40	0.90	1.29	11.58	2.99	2.72
6572		New London	0.12	4.62	0.12	0.26	5.23	0.90	12.48	11.58	2.99	5.18
6174	The Doggett-Pfeil Co., Springfield, N. J.	Old Greenwich	0.83	4.92	0.08	0.49	6.32	1.40	12.32	10.92	3.51	4.56
6175		Old Greenwich	0.14	1.20	2.72	1.18	5.24	1.17	15.23	14.06	2.42	2.78
6555		North Haven	0.00	3.04	0.10	2.36	5.50	1.12	12.58	11.46	4.14	4.14
6352	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	Torrington	0.29	10.70	0.00	0.00	10.99	0.00	52.40	52.40	0.12	16.46
6532	Faesy & Besthoff, Inc., New York, N. Y.											
6654	All Purpose High Organic Pelletized 6-12-6	Manchester	0.79	3.52	0.50	1.59	6.40	1.15	13.15	12.00	5.16	5.16
	Rose Food 8-10-4	Manchester	1.68	2.46	0.42	2.93	7.49	0.60	10.60	10.00	1.97	4.08

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Sand, 42.9%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZER<sup>1</sup>

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen				Per cent phosphoric acid			Per cent potash	
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate
6499 <sup>2</sup> 6213 6497 6507	Gouldard & Olena, Inc., Skillman, N. J.	Hartford	0.75	0.30	0.36	0.93	1.59	0.00	1.55 <sup>3</sup>	0.00	1.10 <sup>4</sup>
		South Windsor	0.79	5.04	0.52	1.41	7.72	0.65	9.22	8.57	6.22
		Hartford	0.51	5.28	0.22	1.17	7.46	0.57	10.30	9.73	5.38
		Hartford	0.51	4.30	2.18	2.25	9.24	0.35	9.18	8.83	3.66
6550 <sup>5</sup> 6253 6169 <sup>6</sup> 6551 <sup>7</sup> 6549 <sup>8</sup>	A. H. Hoffman, Inc., Landisville, Pa.	Norwalk	0.00	0.12	0.53	1.50	2.15	0.22	1.51	1.29	2.27
		Stamford	0.00	4.00	0.44	1.40	5.84	0.15	10.15	10.00	6.44
		Greenwich	0.00	0.14	2.08	2.31	4.53	0.00	4.15	0.00	2.29
		Bridgeport	0.00	0.04	0.00	0.00	4.04	0.00	21.40	0.00	0.00
6170 6230	Hydroponic Chemical Co., Inc., Copley, Ohio	Norwalk	0.00	0.06	0.02	1.20	1.28	0.00	1.30	0.00	2.28
		Greenwich	6.23	1.20	0.14	0.01	7.58	0.15	8.12	7.97	21.12
		Meriden	1.90	2.37	0.22	0.00	4.49	0.00	7.85	7.85	5.76
		Meriden	1.90	2.37	0.22	0.00	4.49	0.00	7.85	7.85	5.76

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	Kem-ical Corp., East Paterson, N. J.	Hartford	0.02	0.01	0.01	0.01	0.05	0.09	0.00	0.18	0.18	0.00	0.24
6489	Kem—Liquid Plant Food 0.08-0.16-0.1												
6571	Mandeville & King Co., Rochester, N. Y.	New London	7.11	4.20	0.60	0.04	11.95	0.00	20.38	20.38	0.04	23.60	
	Stim-U-Plant Modern Plant Food Tablet 11-12-15												
6212	Olds & Whipple, Inc., Hartford, Conn.	South Windsor	0.59	4.00	0.16	0.78	5.53	0.40	9.55	9.15	6.95	7.60	
	O & W 5-8-7 Potato and General Purpose Fertilizer												
6617	Pedigreed Seed Co., New York, N. Y.	Westport	1.34	5.00	1.00	1.39	8.73	1.10	12.65	11.55	3.27	4.26	
	Lofts Lawn Food 8-12-4												
6514	Plantabbs Corp., Baltimore, Md.	West Hartford	7.59	3.40	0.16	0.02	11.17	0.00	17.45	17.45	0.08	25.94	
	Fulton's Plantabbs Plant Food Tablets 11-15-20												
6195	Ra-Pid-Gro Corp., Dausville, N. Y.	Wethersfield	4.44	4.10	14.90	0.00	23.44	0.00	20.20	20.20	0.00	15.82	
	Ra-Pid-Gro 23-21-17												
6570 <sup>a</sup>	The Rogers & Hubbard Co., Portland, Conn.	New London					2.71		26.60				
6225	Gro-Fast Bone Meal 2-23	Meriden	0.00	2.16	2.96	2.57	7.69	2.25	12.48	10.23	0.80	5.32	
	Gro-Fast Rose Food 7-10-5												
6618	Roigina Products, Lincoln, Neb.	New Haven					12.00	0.07	5.75	5.68	0.28	9.04	
	Roigina (African Violet Plant Food) 11-4-8												

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Sand, 54.53%.<sup>3</sup> Total phosphoric acid guaranteed, 1.0%.<sup>4</sup> Total potash guaranteed, 1.0%.<sup>5</sup> Sand, 2.1%.<sup>6</sup> Sand, 4.21%.<sup>7</sup> Mechanical analysis: fine, 39.5%; coarse, 60.5%.<sup>8</sup> Sand, 47.94%.<sup>9</sup> Mechanical analysis: fine, 67.5%; coarse, 32.5%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZER

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen					Per cent phosphoric acid			Per cent potash	
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total
6265	Rose Manufacturing Co., Beacon, N. Y. Triogen Rose Food 5-10-5	Danbury	0.51	3.44	0.80	0.42	5.17	3.10	12.73	9.63	1.28	4.22
6508	Saratoga Laboratories, Inc., Saratoga Springs, N. Y. Trace L 8-16-7	Hartford	0.00	8.60	0.24	0.00	8.84	0.00	18.15	18.15	7.19	7.62
6068	O. M. Scott & Sons Co., Marysville, Ohio Scott's Weed & Feed 7-11-5	Westville	0.20	3.24	0.30	3.42	7.16	0.30	10.45	10.15	5.18	7.16
6548	Sears, Roebuck & Co., Chicago, Ill. Cross Country Rose Food (No Filler) 5-10-5	Norwalk	0.60	3.32	0.80	0.41	5.13	2.82	12.95	10.13	1.00	3.96
6587 <sup>2</sup>	Cross Country Sheep Manure 1.5-0.75-2	Middletown	.....	0.00	0.34	1.60	1.94	0.32	1.51	1.19	.....	2.26
6584	The Smith Agricultural Chemical Co., Columbus, Ohio Sacco Plant Food 4-12-4	New Haven	0.53	3.32	0.16	0.37	4.38	0.97	13.70	12.73	3.69	4.22
6655 <sup>3</sup>	Wendell S. Still, Selden, N. Y. Farmanure 2-1-1	Manchester	.....	0.18	0.90	2.64	3.72	0.37	2.74	2.37	0.51	2.19

6617 <sup>4</sup>	Stockdale Fertilizer Co., Morris, Ill.	Ovene (Sheep Manure) 1-1-1 .....	New Haven .....	...	0.01	0.00	1.35	1.36	0.40	1.51	1.11	0.66	2.56
6219	Swift & Co., Boston, Mass.	Vigoro 5-10-5 .....	New Haven .....	0.49	4.68	0.08	0.19	5.14	1.22	11.75	10.53	4.84	5.34
6531		Vigoro Tablets 4-12-4 .....	Manchester .....	0.00	4.00	0.18	0.27	4.45	0.42	14.02	13.60	4.56	4.56
6624	The Terre Co., Rochelle Park, N. J.	Terre Lawnsur 8-6-5 .....	Darien .....	0.45	2.62	2.32	3.00	8.39	0.30	5.18	4.88	5.02	5.42
6625		Terre Rodogro 6-4-4 .....	Darien .....	0.23	2.24	1.42	2.03	5.92	0.35	4.79	4.44	0.23	3.56
6588	Universal Chemical Co., Lynn, Mass.	Electra Plant Food 5-10-3 .....	East Hartford ..	0.60	2.50	0.20	1.87	5.17	0.82	11.00	10.18	2.94	3.44
6607 <sup>5</sup>	Walker-Gordon Laboratory Co., Plainsboro, N. J.	Bovette 2-1-1 .....	New Canaan .....	...	0.08	0.69	1.35	2.12	0.20	1.64	1.44	0.51	2.34
6191 <sup>6</sup>		Bovung 2-1-1 .....	Hamden .....	...	0.06	0.69	1.59	2.34	0.27	1.80	1.53	0.58	2.67
6585	Garfield Williamson, Inc., Jersey City, N. J.	IMP Rose Food 5.5-14-2 .....	Ansonia .....	0.23	3.22	0.54	1.45	5.44	6.40	18.58	12.18	1.95	2.18
6586		Plantspur 4-4-2 .....	Ansonia .....	0.43	3.00	0.10	0.75	4.28	0.80	4.80	4.00	1.42	2.16
6610	Andrew Wilson, Inc., Springfield, N. J.	Wilson's Orchid Fertilizer 10-10-10 ..	Greenwich .....	7.77	3.84	0.10	0.09	11.80	0.00	14.17	14.17	0.04	2.76

<sup>1</sup> Deficiencies are in bold face type.<sup>2</sup> Sand, 22.07%.<sup>3</sup> Sand, 8.37%.<sup>4</sup> Sand, 43.18%.<sup>5</sup> Sand, 1.74%.<sup>6</sup> Sand, 2.8%.

TABLE 9. ANALYSES OF OTHER MISCELLANEOUS MATERIALS

Station No.	Material	Nitrogen per cent	Total phosphoric acid per cent	"Available" phosphoric acid per cent	Water-soluble potash per cent	Chlorine per cent	Moisture per cent	Calcium per cent	Magnesium per cent	Manganese per cent	Iron per cent	Aluminum per cent	Zinc per cent	Copper parts per million	Boron parts per million
7132	Button dust	..	0.23	..	..	..	..	36.91	0.06	0.003	0.058	0.135	..	28	21
4855	Chalker peat	..	2.59	..	0.52	..	48.0	0.42	..	..	..	..	..	..	..
5515	Chicken manure - peat	1.01	..	..	..	..	..	..	..	..	..	..	..	..	..
5517	Chicken manure - peat	0.89	1.40	..	0.31	..	42.0	..	..	..	..	..	..	..	..
4860	Compost	..	0.82	..	..	..	..	2.10	0.32	0.042	1.02	0.66	0.12	430	130
4861	Compost	..	1.19	..	..	..	..	2.40	0.26	0.05	0.97	0.76	0.11	440	140
2454	Cow manure	..	2.34	..	1.10	..	..	7.00	1.60	0.015	0.30	0.050	0.021	61	38
6441	Gro-Fast Aluminum Sulphate	..	..	..	..	..	..	..	..	..	..	9.42 <sup>1</sup>	..	..	..
6442	Gro-Fast Aluminum Sulphate	..	..	..	..	..	..	..	..	..	..	9.43 <sup>1</sup>	..	..	..
6699	Martin's Granite Dust	1.48	0.00	0.25 <sup>2</sup>	..	..	..	..	..	..	..	..	..	..	..
7094	Organic Plant Food	..	3.33	2.26	1.14	..	..	..	..	..	..	..	..	..	..
5516	Peat and Sludge	1.00	1.42	..	0.39	..	22.0	..	..	..	..	..	..	24	31
4854	Peat moss	..	0.27	..	..	..	..	0.48	0.11	0.003	0.062	0.036	..	..	..
5416	Pig manure	2.80	3.75	..	0.68	..	23.0	..	..	..	..	..	..	..	..
6316	Sewage sludge	1.31	1.83	..	..	..	..	1.05	0.17	0.015	0.93	0.47	0.23	340	170
6317	Sewage sludge	2.05	2.75	..	..	..	..	1.12	0.20	0.024	1.10	0.48	0.38	610	240
2469	Sheep manure	..	0.55	..	3.66	..	..	1.42	0.41	0.035	0.83	1.08	..	190	120
6090	Super Gran-its	..	0.05	..	0.10	..	..	..	..	..	..	..	..	..	..
4625	Tobacco dust	1.80	0.53	..	2.03	..	..	..	..	..	..	..	..	..	..
4305	Tobacco stems	1.12	0.73	..	6.77	2.46	17.0	..	..	..	..	..	..	..	..
4306	Tobacco stems	1.10	0.71	..	5.81	1.94	19.0	..	..	..	..	..	..	..	..
4307	Tobacco stems	1.08	0.75	..	6.21	1.90	17.0	..	..	..	..	..	..	..	..

<sup>1</sup> Guaranteed 9.00.

<sup>2</sup> Total potash, 3.88 per cent.

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